

Company: Noble Energy Inc

Well: Shable K08-69HN  
Field: Wattenberg  
County: Weld State: Colorado

County: Weld			
Field: Wattenberg			
Location: NENE Sec. 7 T4N R66W			
Well: Shable K08-69HN			
Company: Noble Energy Inc			
USI-LITE	LOCATION		
	Permanent Datum: Log Measured From: Drilling Measured From:		GL KB KB
			Elev: K.B. 4745.0 F G.L. 4715.0 F D.F. 4744.0 F
Logging Date	18-Sep-2014		
Run Number	Run1 USIT		
Depth Driller	17656.0 F		
Schlumberger Depth	17656.0 F		
Bottom Log Interval	7100.0 F		
Top Log Interval	-999.2 F		
Casing Fluid Level	0.0 F		
Salinity			
Density	8.40 LB/G		
Fluid Level	0.0 F		
BIT/CASING/TUBING STRING			
Bit Size	8.750 IN		
From	-999.2 F		
To	17656.0 F		
Casing Size	7.00 IN		
Weight	26.00 LB/F		
Grade	P110		
From	0.0 F		
To	7526.0 F		
Max Recorded Temp	245.0		
Logger on bottom (date)	18-Sep-2014		
Location	Fl. Morgan CO		
Recorded By	Tim Hoffman		
Witnessed By	Bill Mansfield		

DEPTH SUMMARY LISTING

DEPTH SYSTEM EQUIPMENT

Depth Measuring Device	Tension Device	Logging Cable
Type: Serial Number: Calibration Date: Calibration Cable Type: Wheel Correction 1: Wheel Correction 2:	Type: Serial Number: 1109 Calibration Date: Calibrator Serial Number: Number Of Calibration Points: Calibration RMS: Calibration Peak Error:	Serial Number: Length: 11800.00000

DISCLAIMER

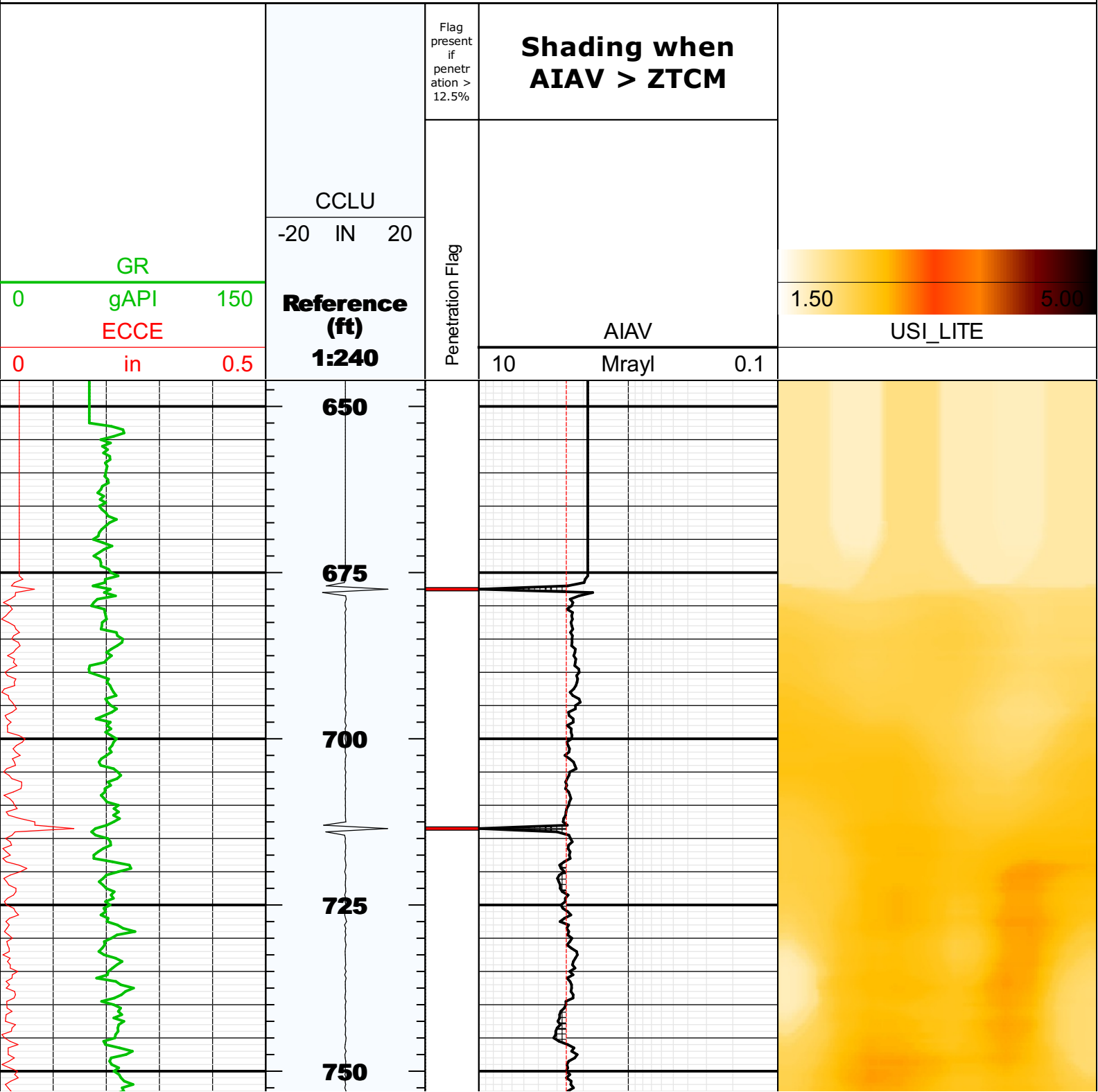
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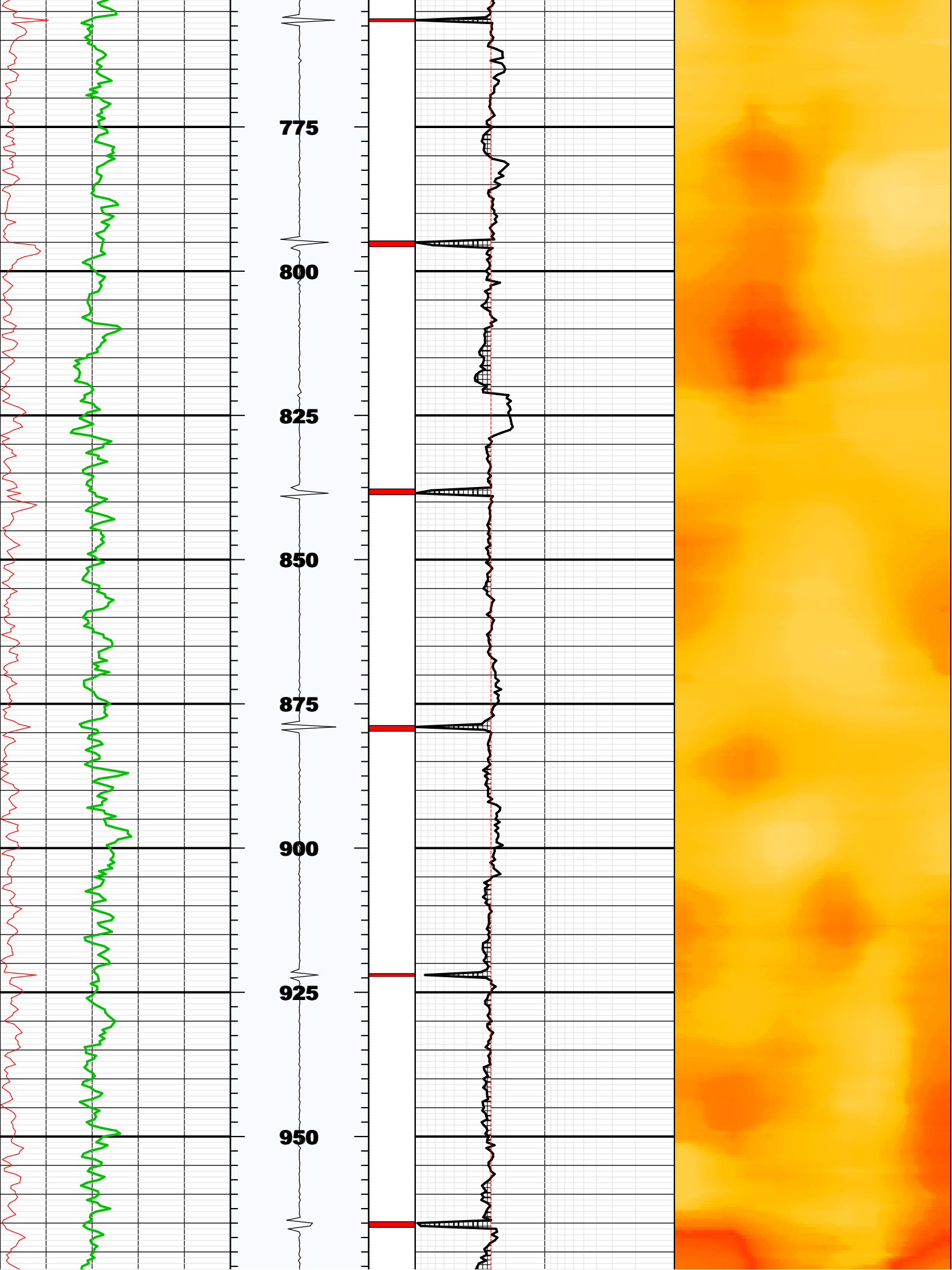
This is the first run in hole  
Toolstring run as per tool sketch  
13.6 ppg single slurry cement  
Well logged at both 0 and 3000 PSI  
On 0 PSI pass sub would not spin below 7070' logged out from there  
On 3000 PSI pass tool would not go down past 7110' but sub spun logged out from there

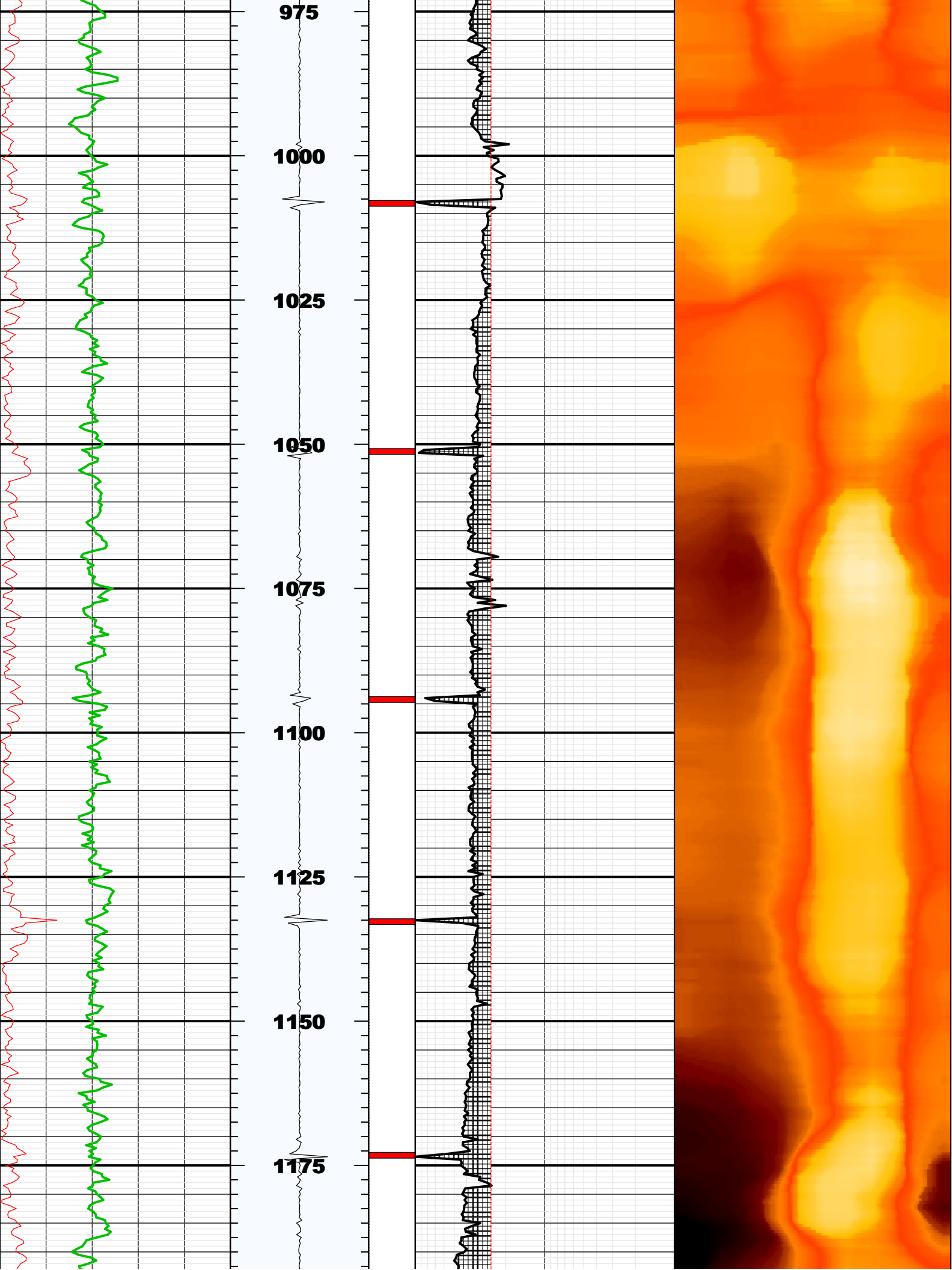
Bottom log temperature 245 degF  
Top of cement 800 ft  
Crew Jay Musgrave Jake Jump

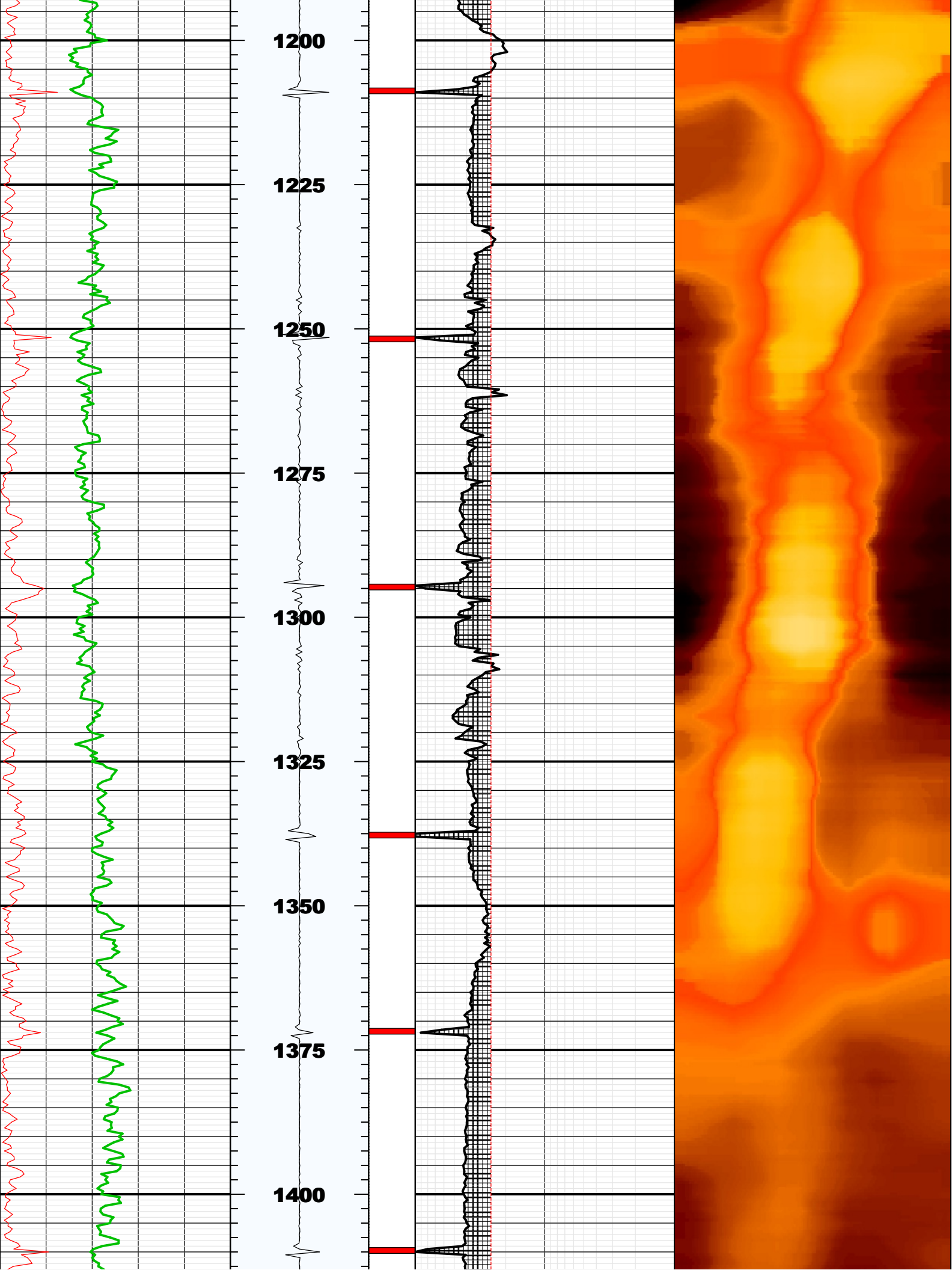
Main Pass

Company: Noble Energy Inc  
Well: Shable K08-69HN  
Field: Wattenberg

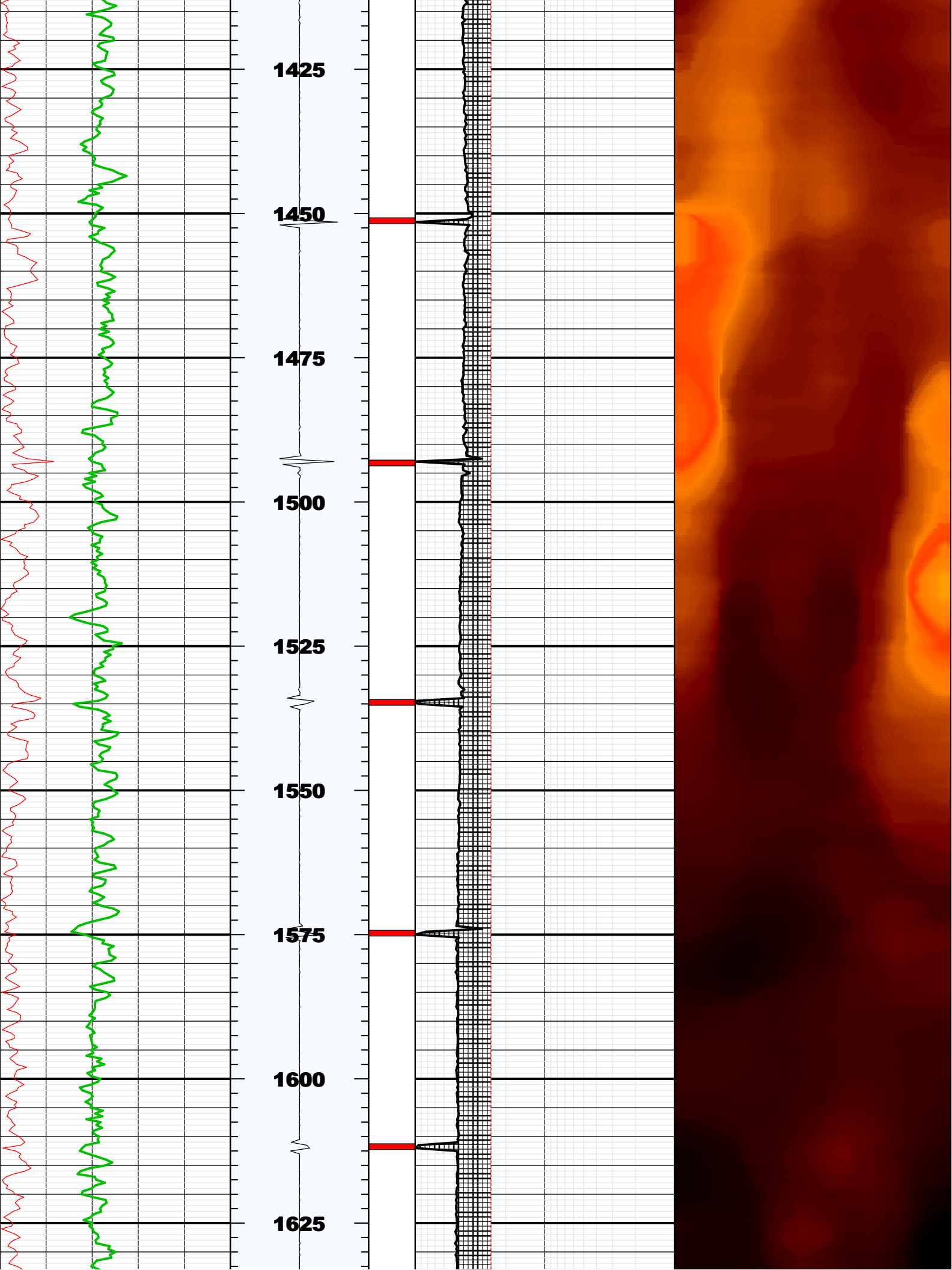


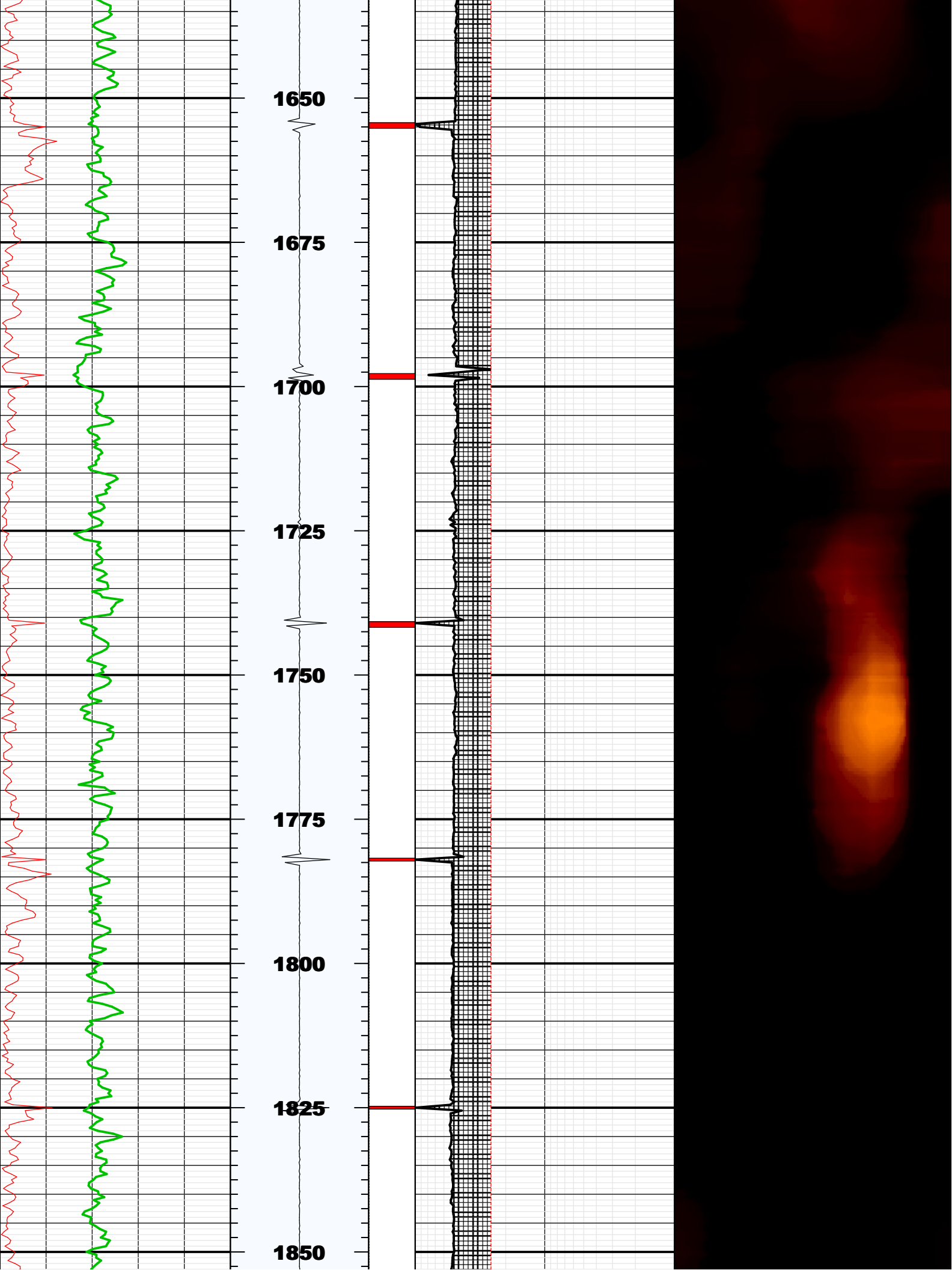




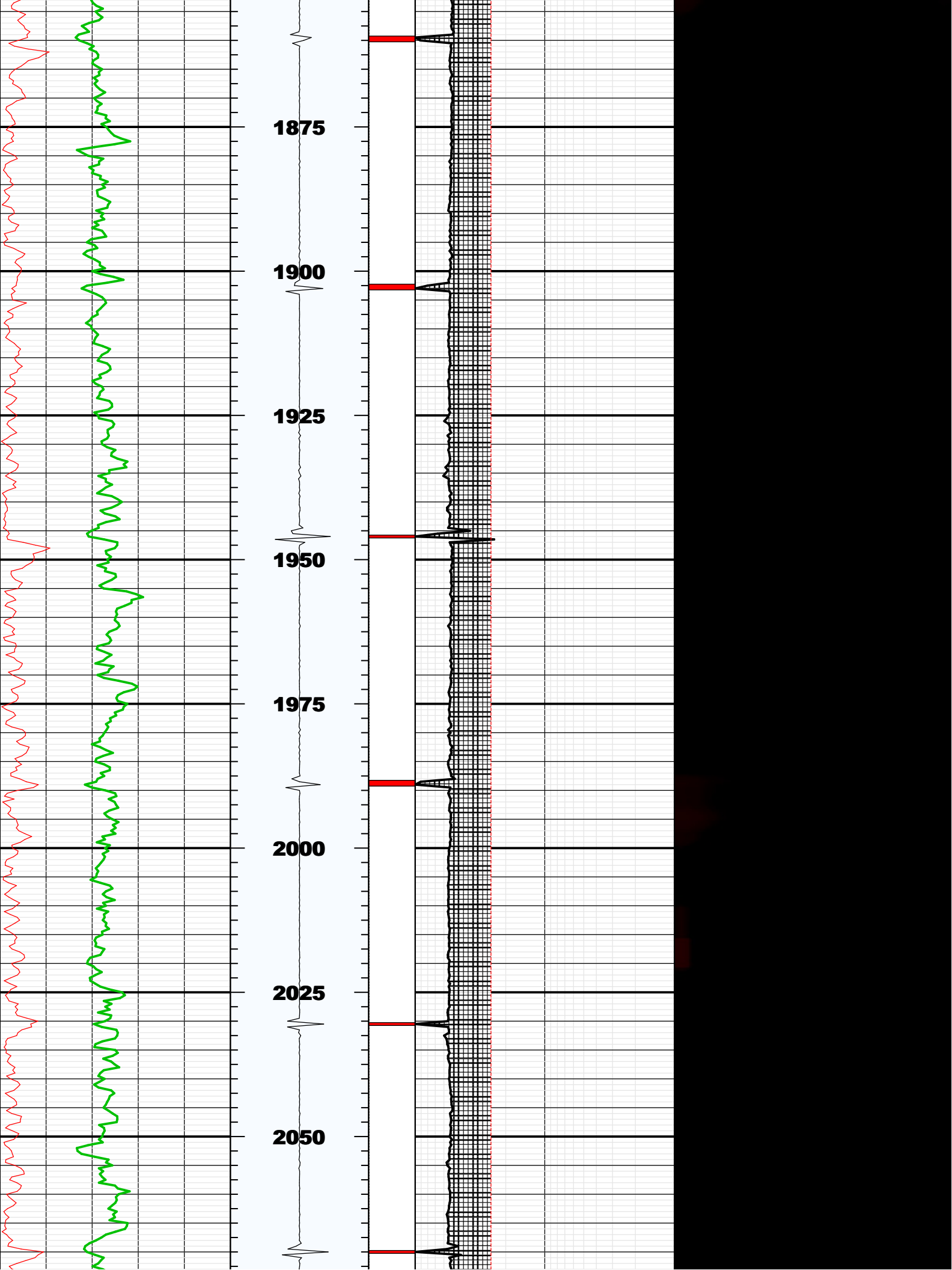


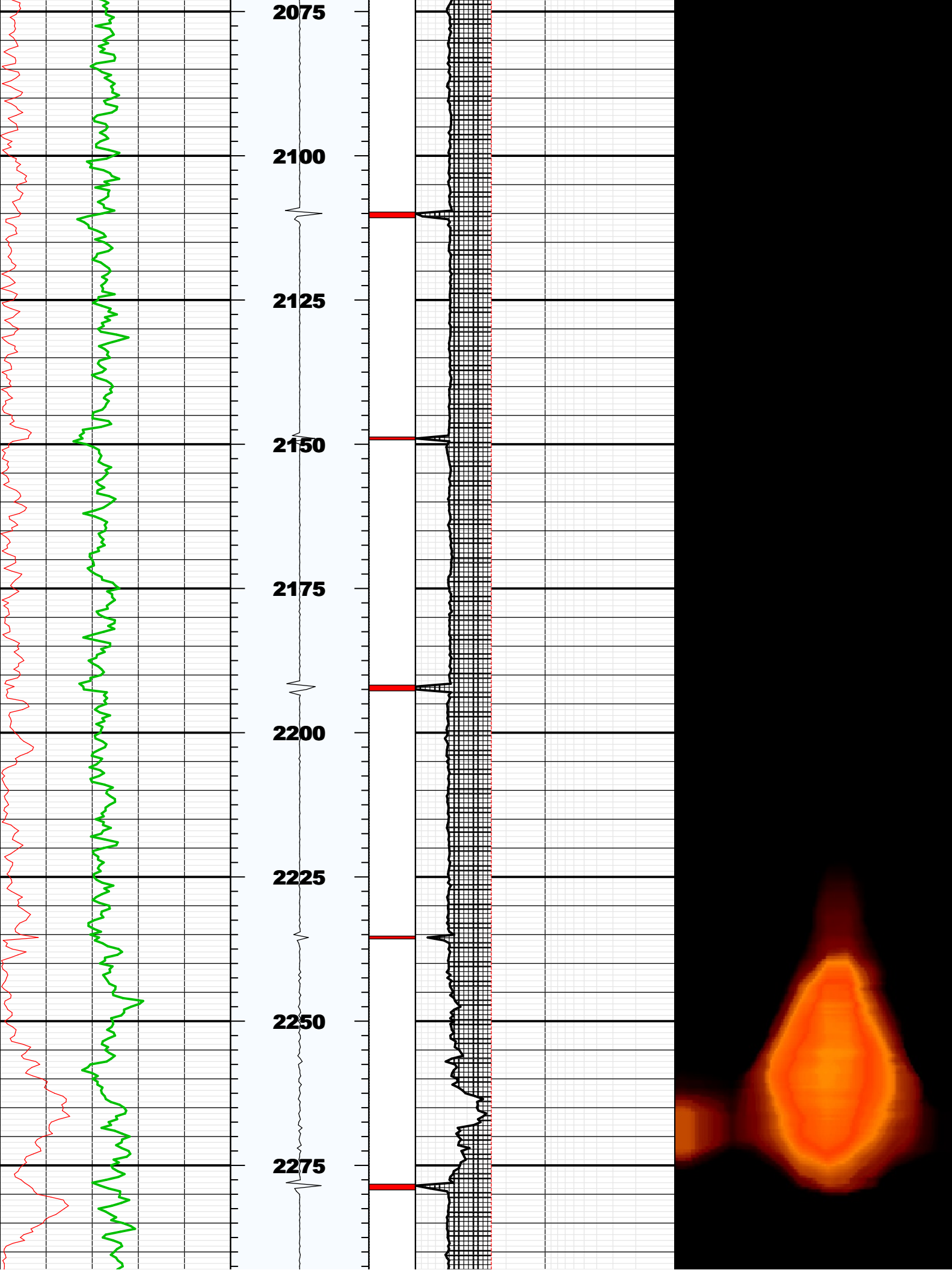


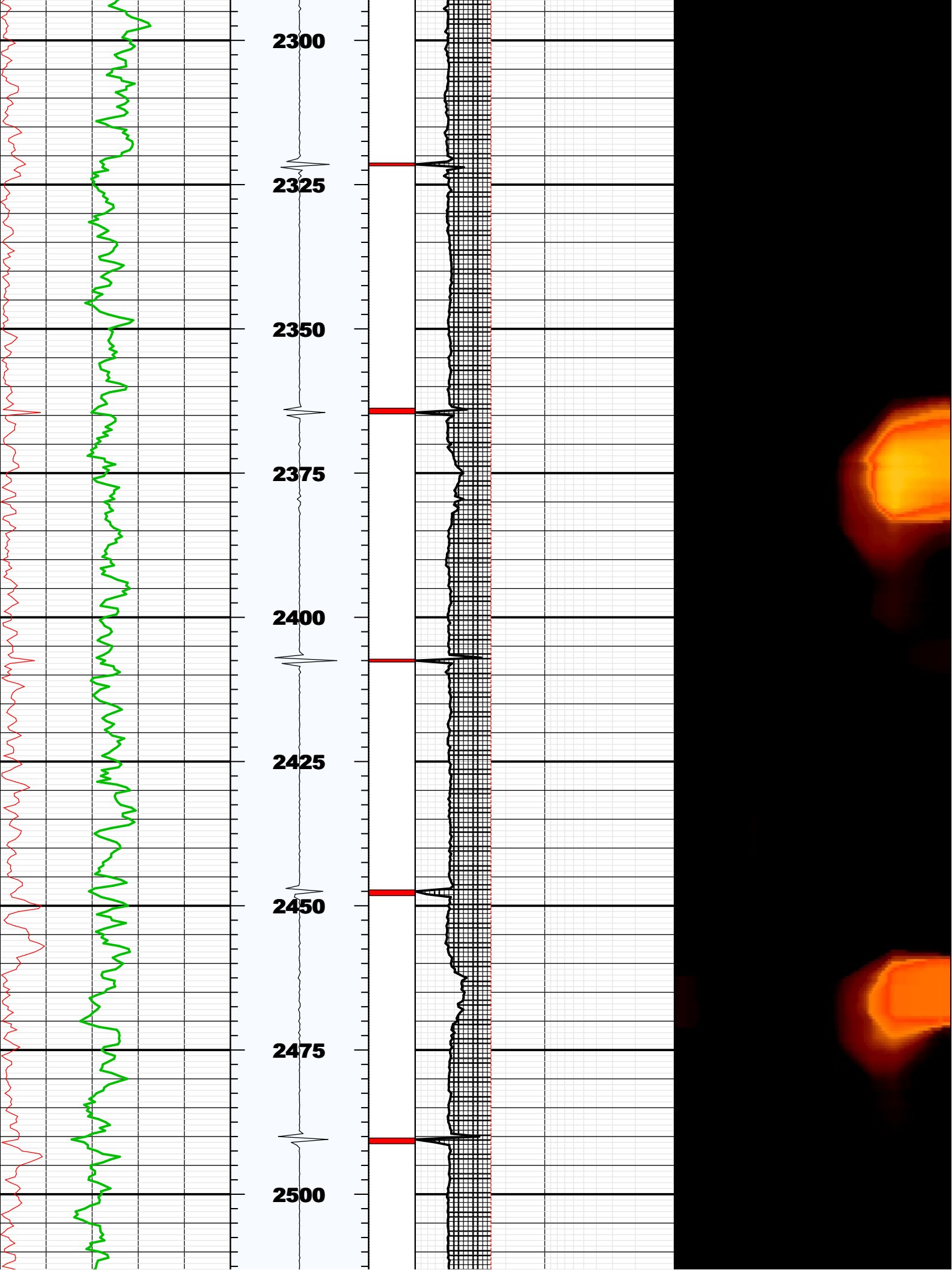


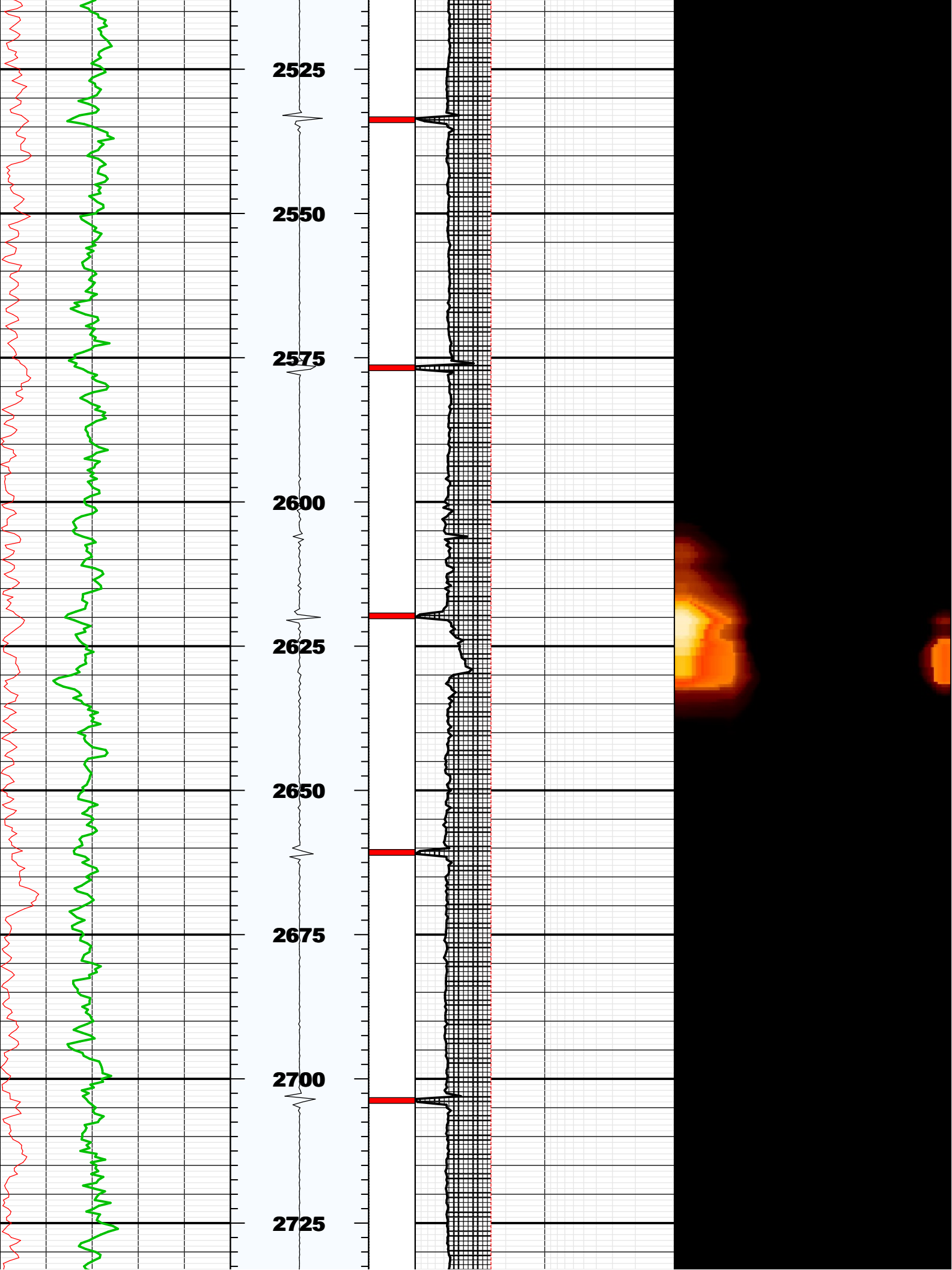


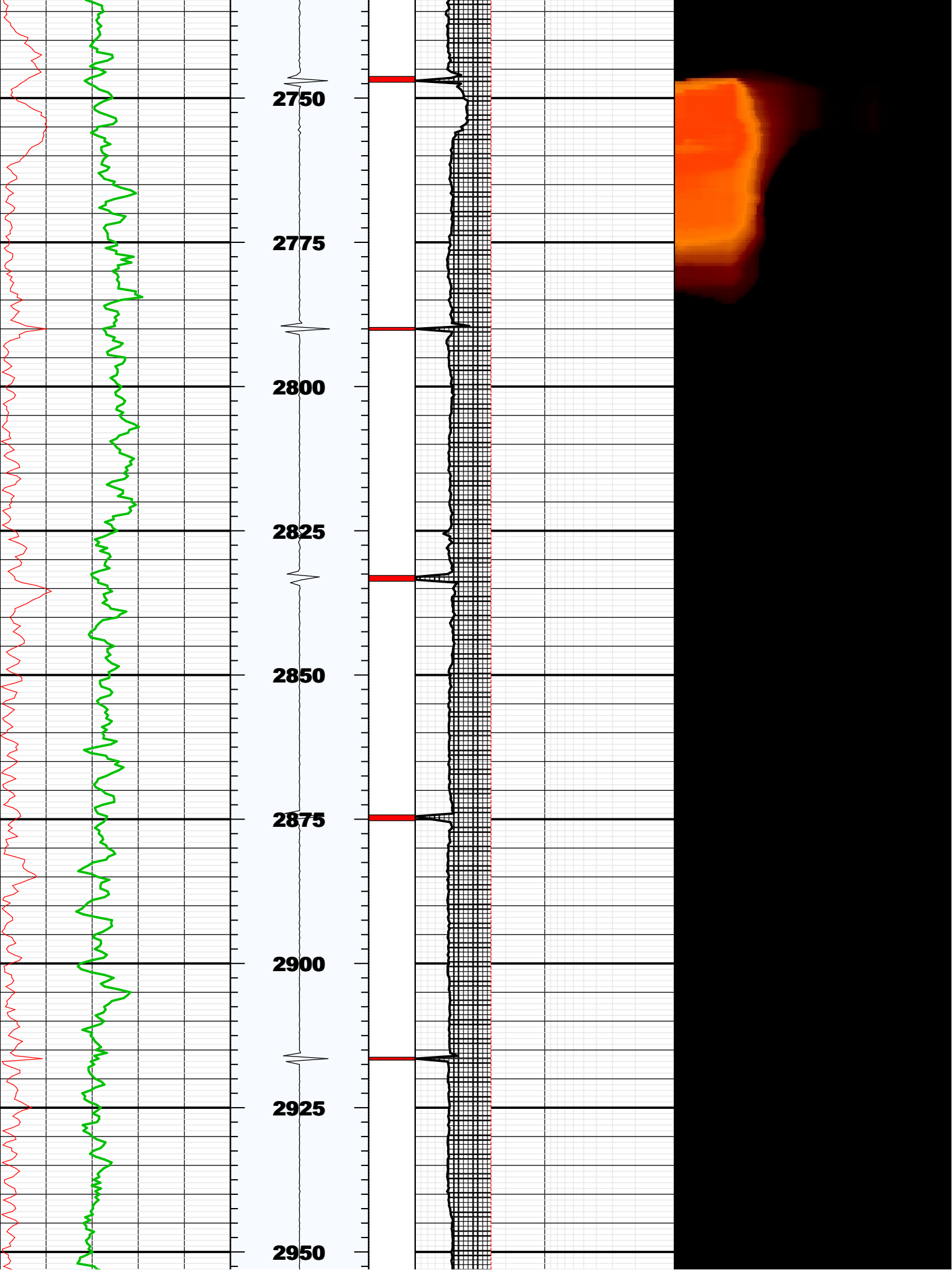


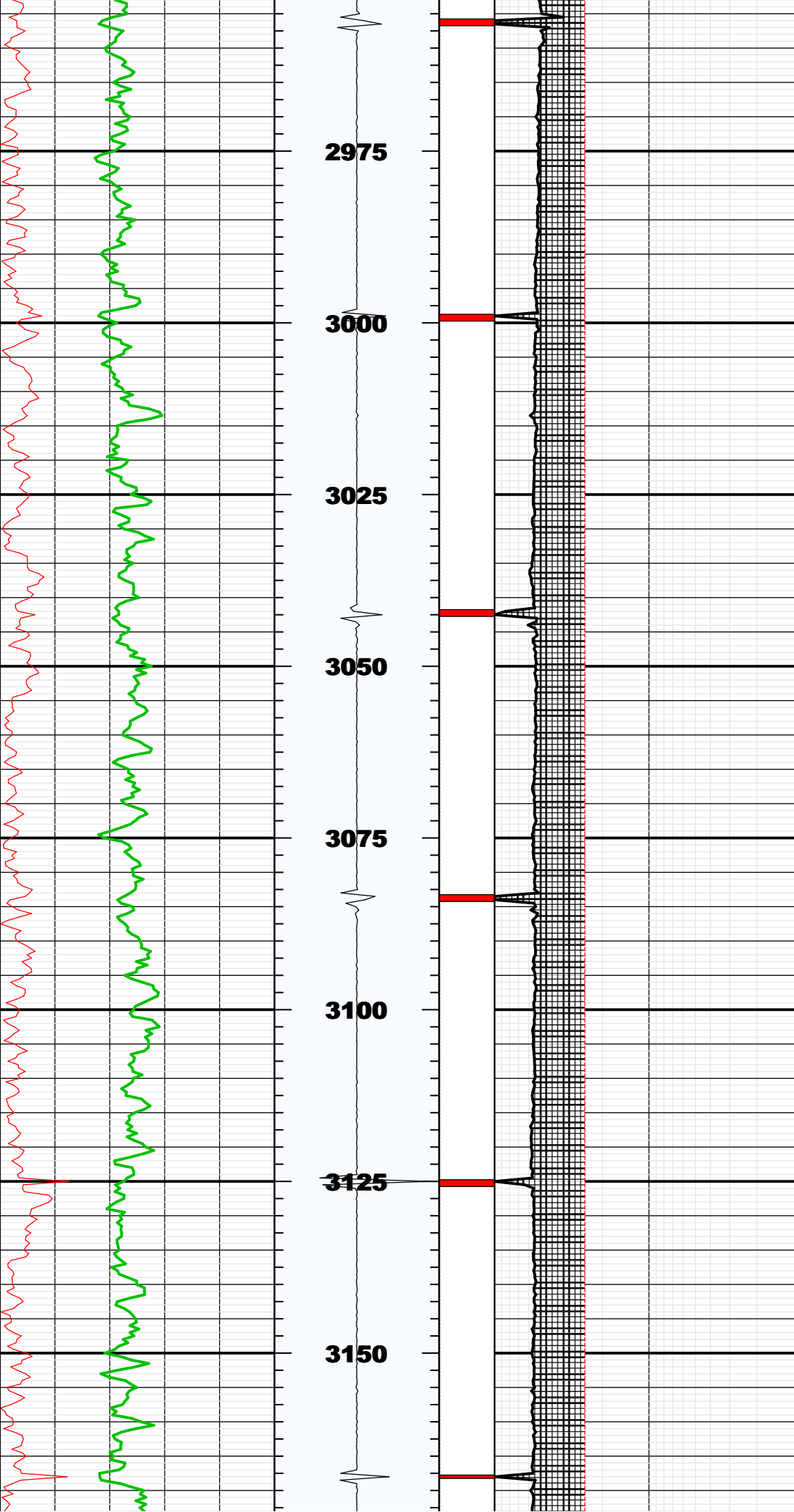




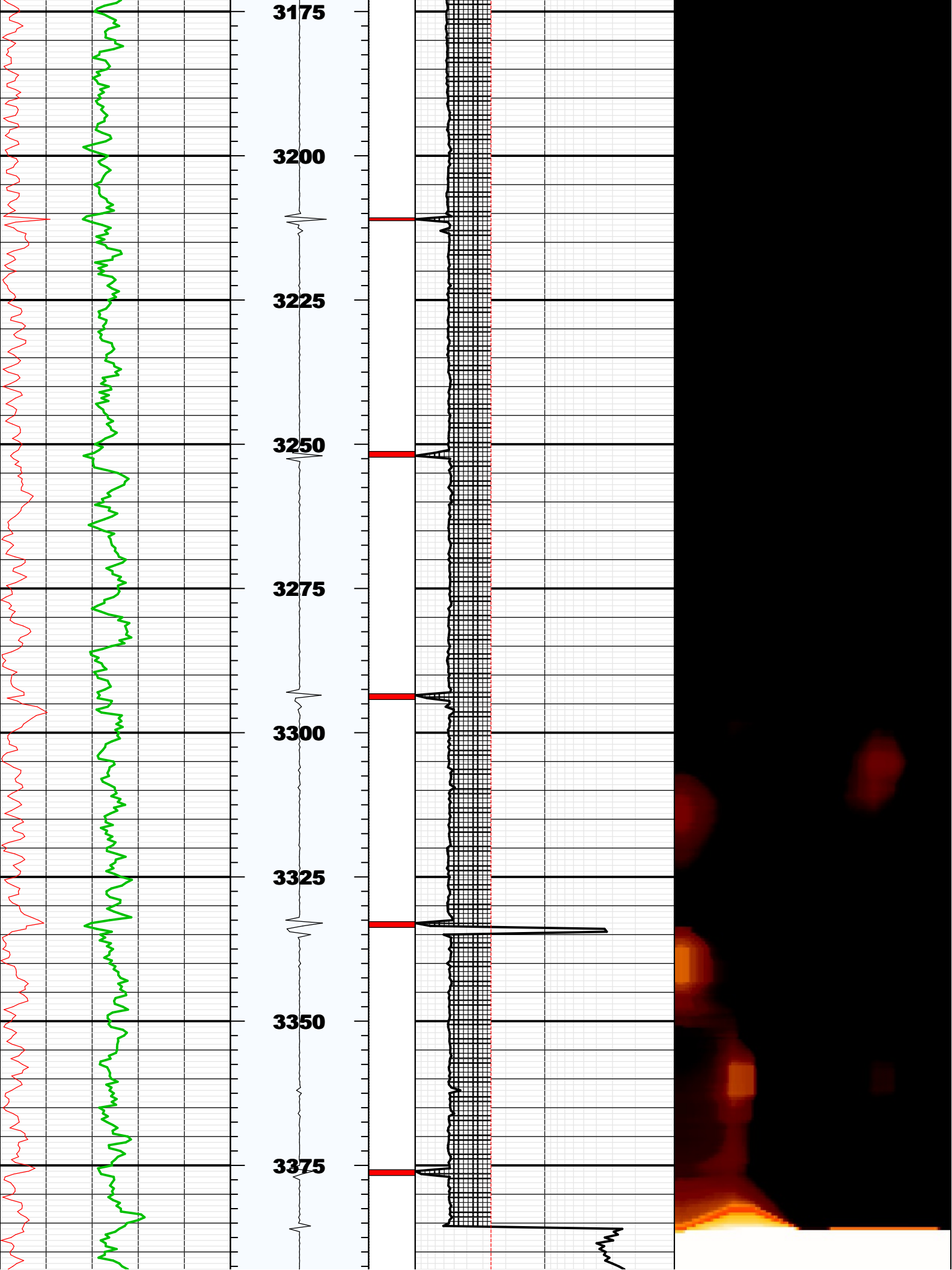


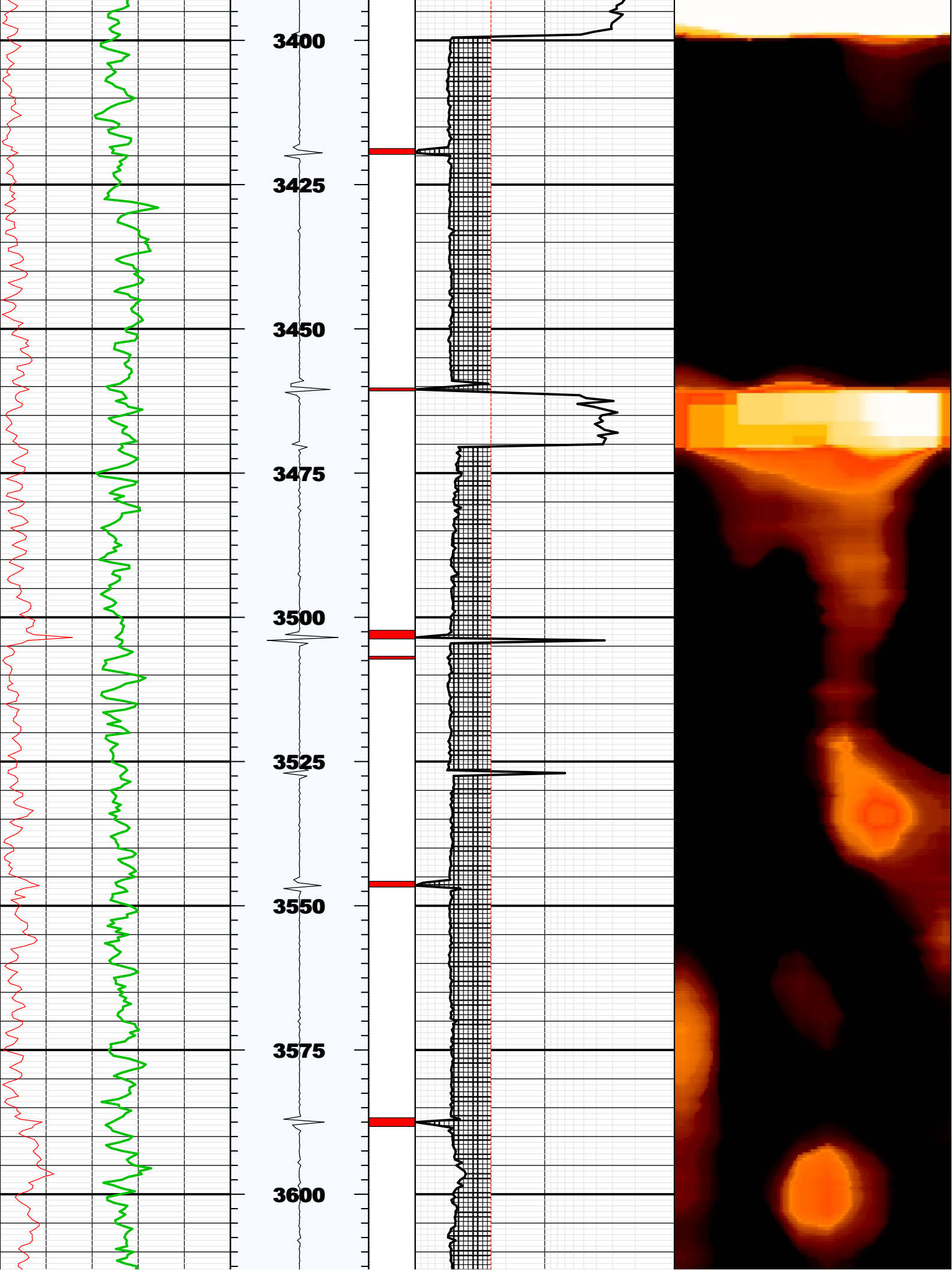


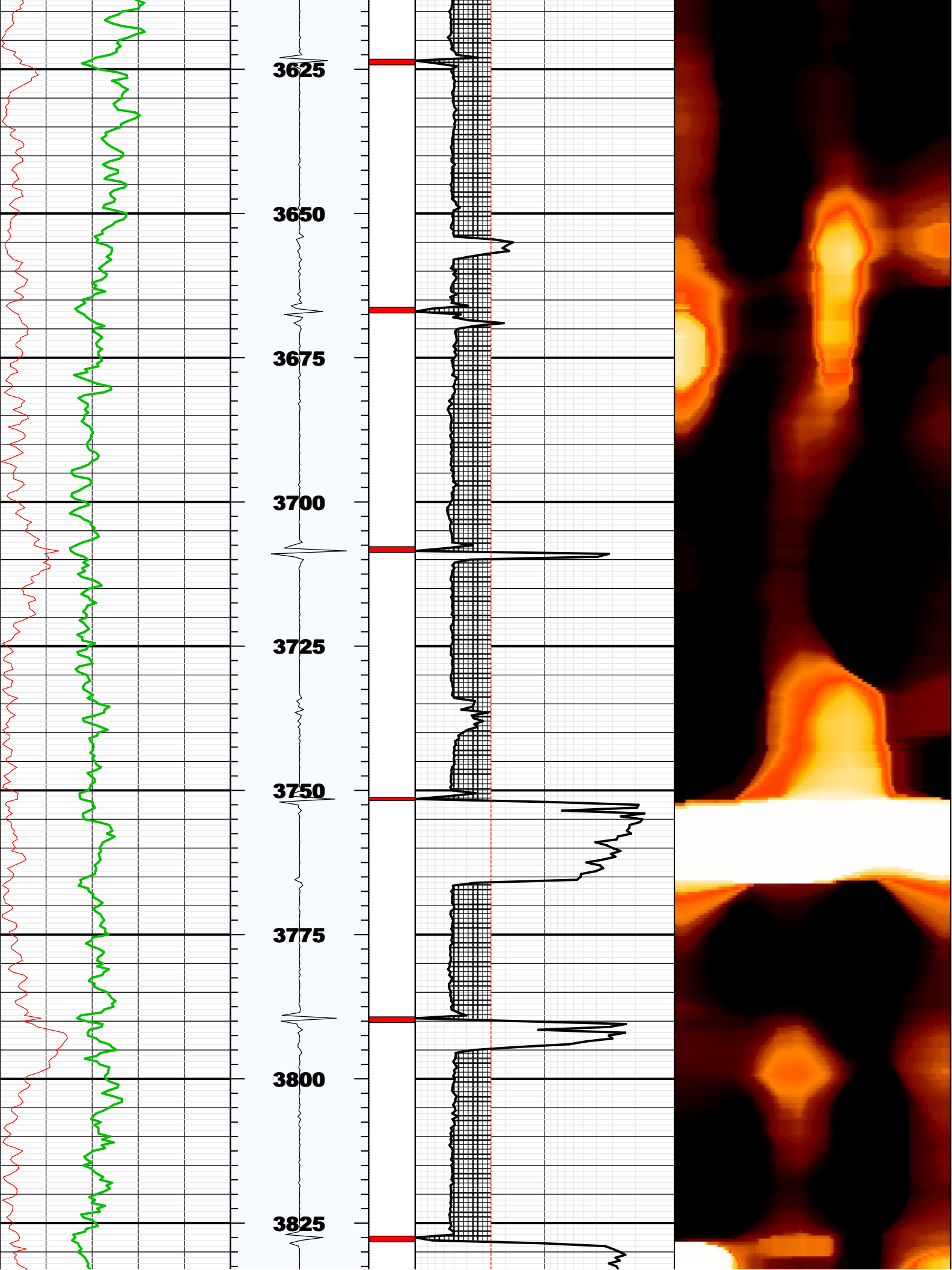


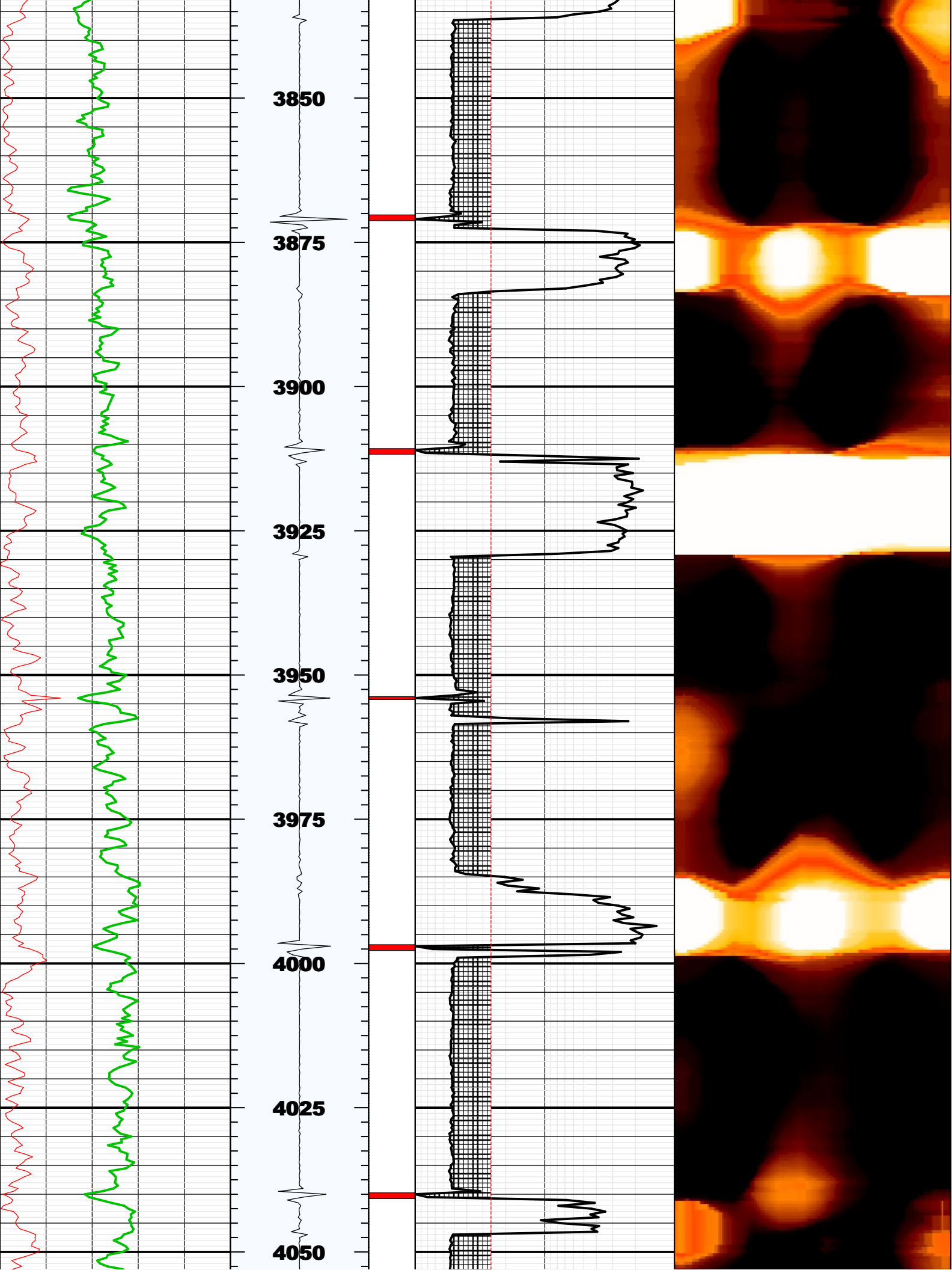




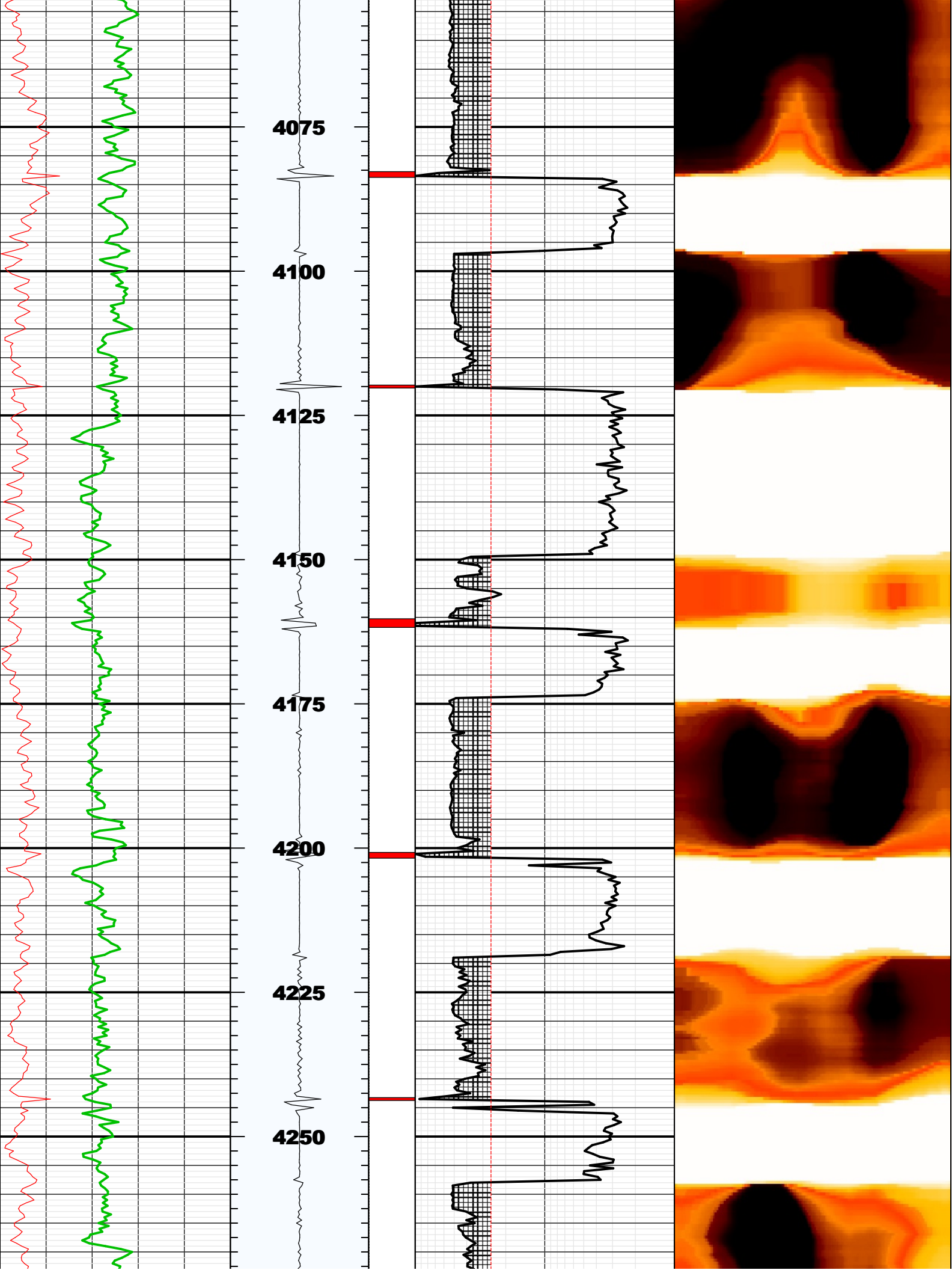


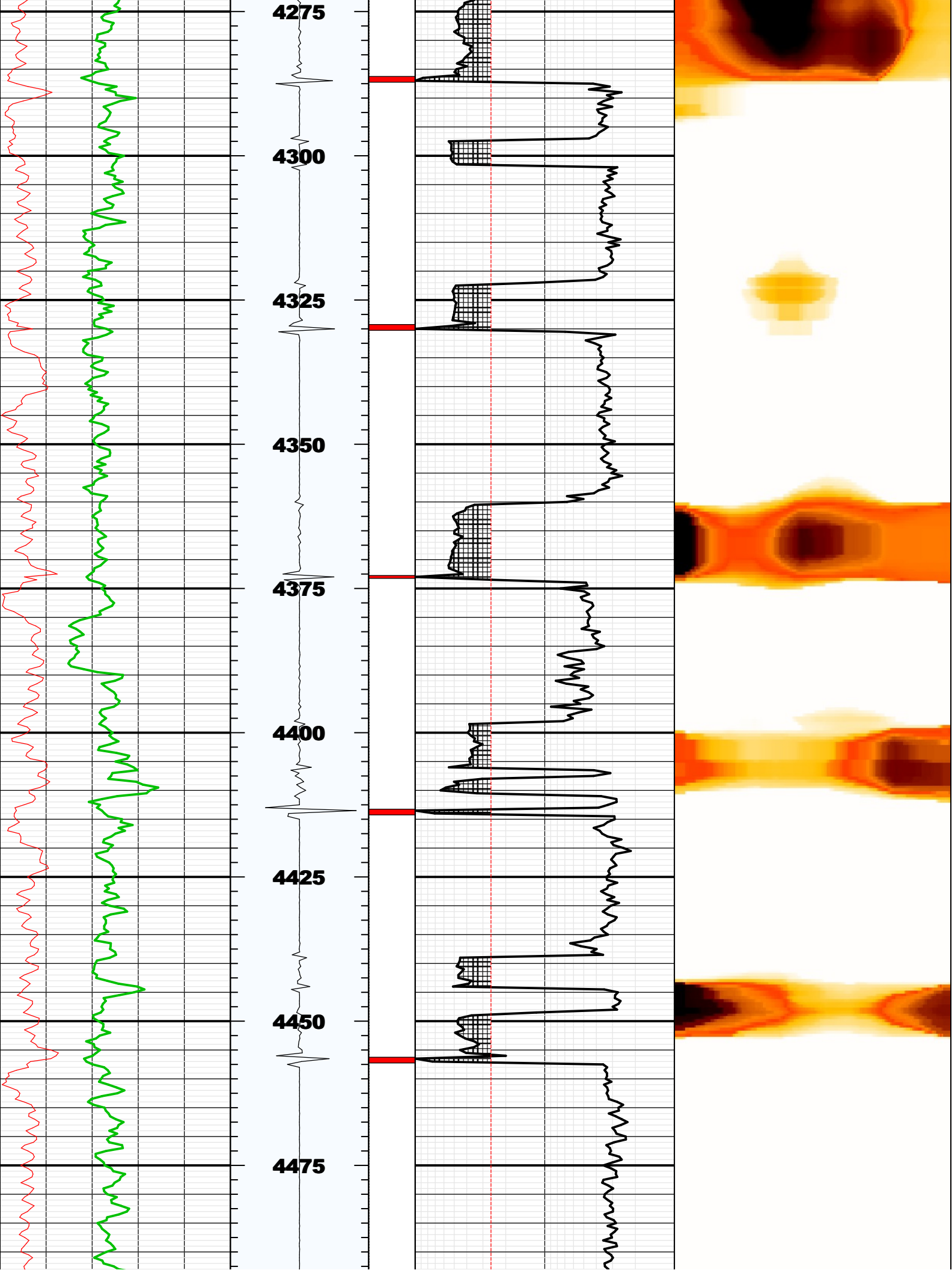




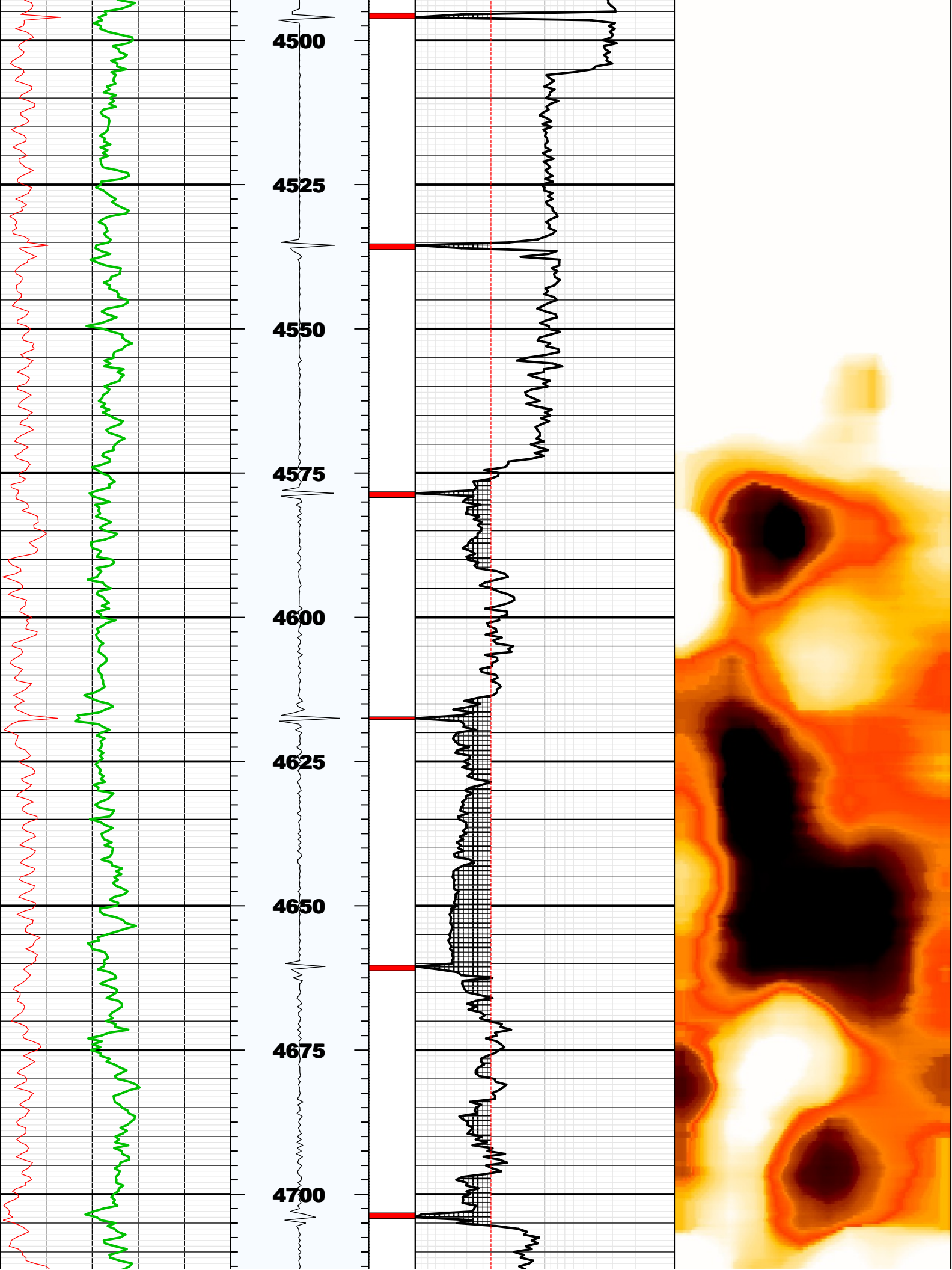


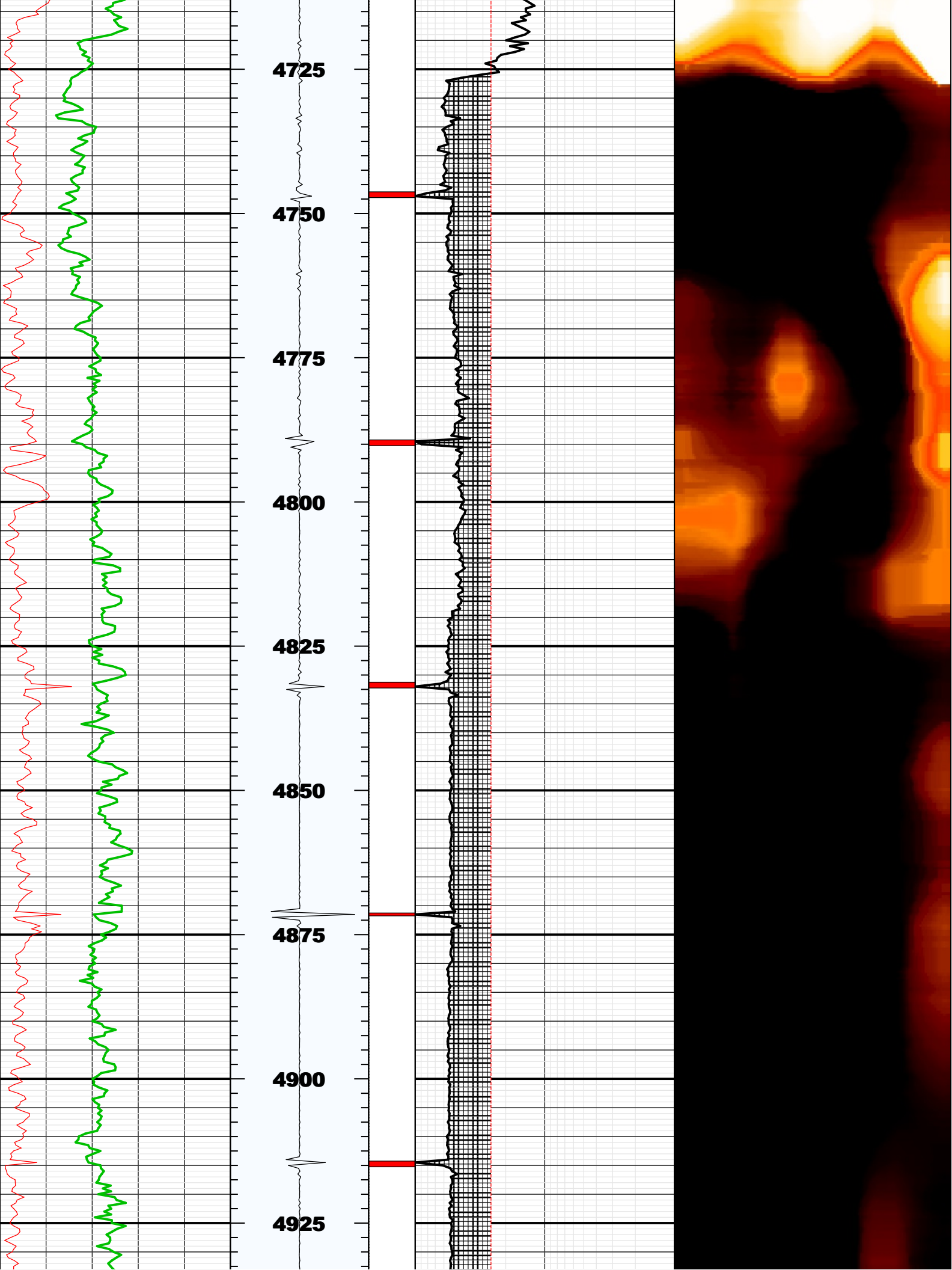


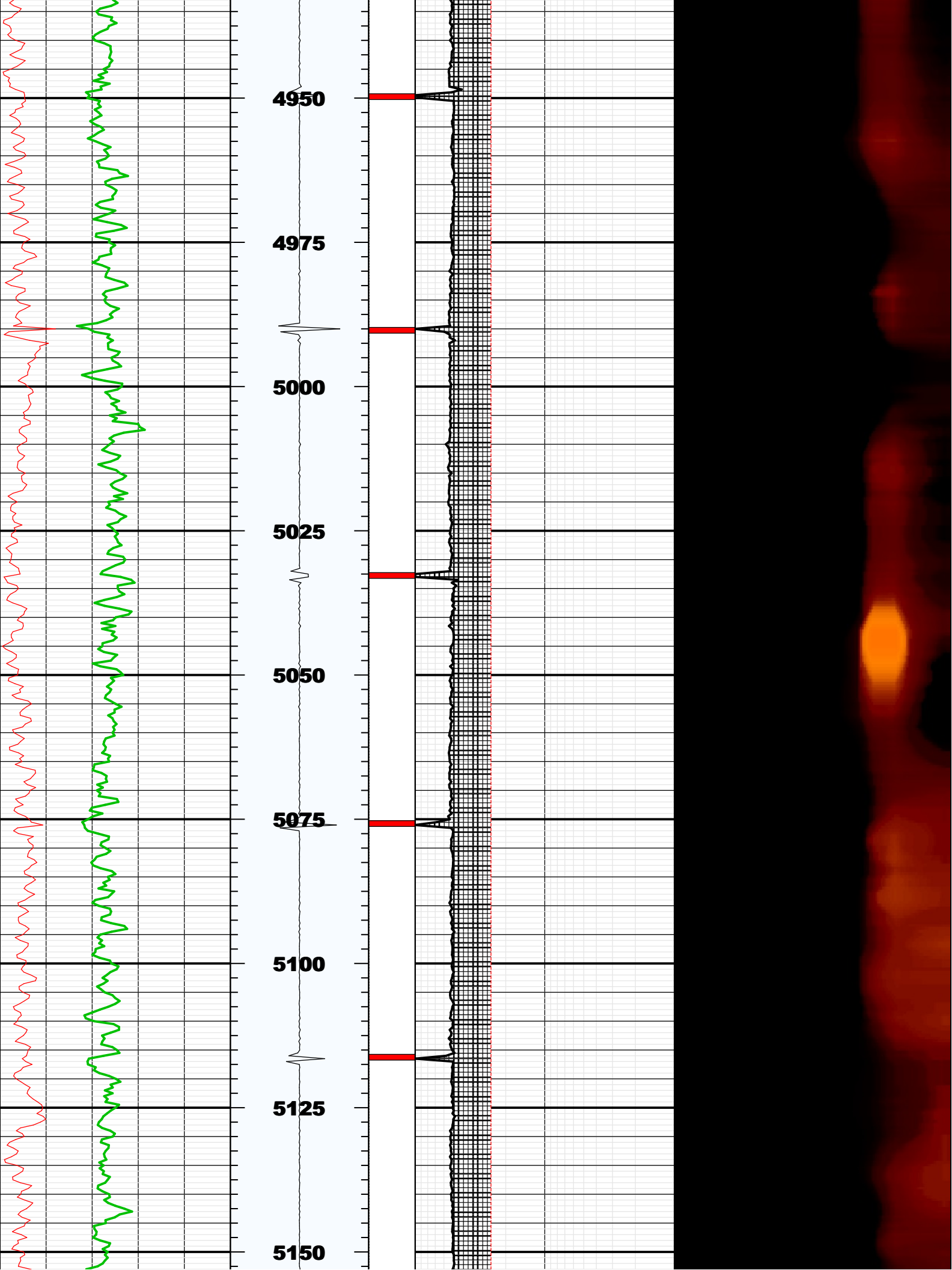


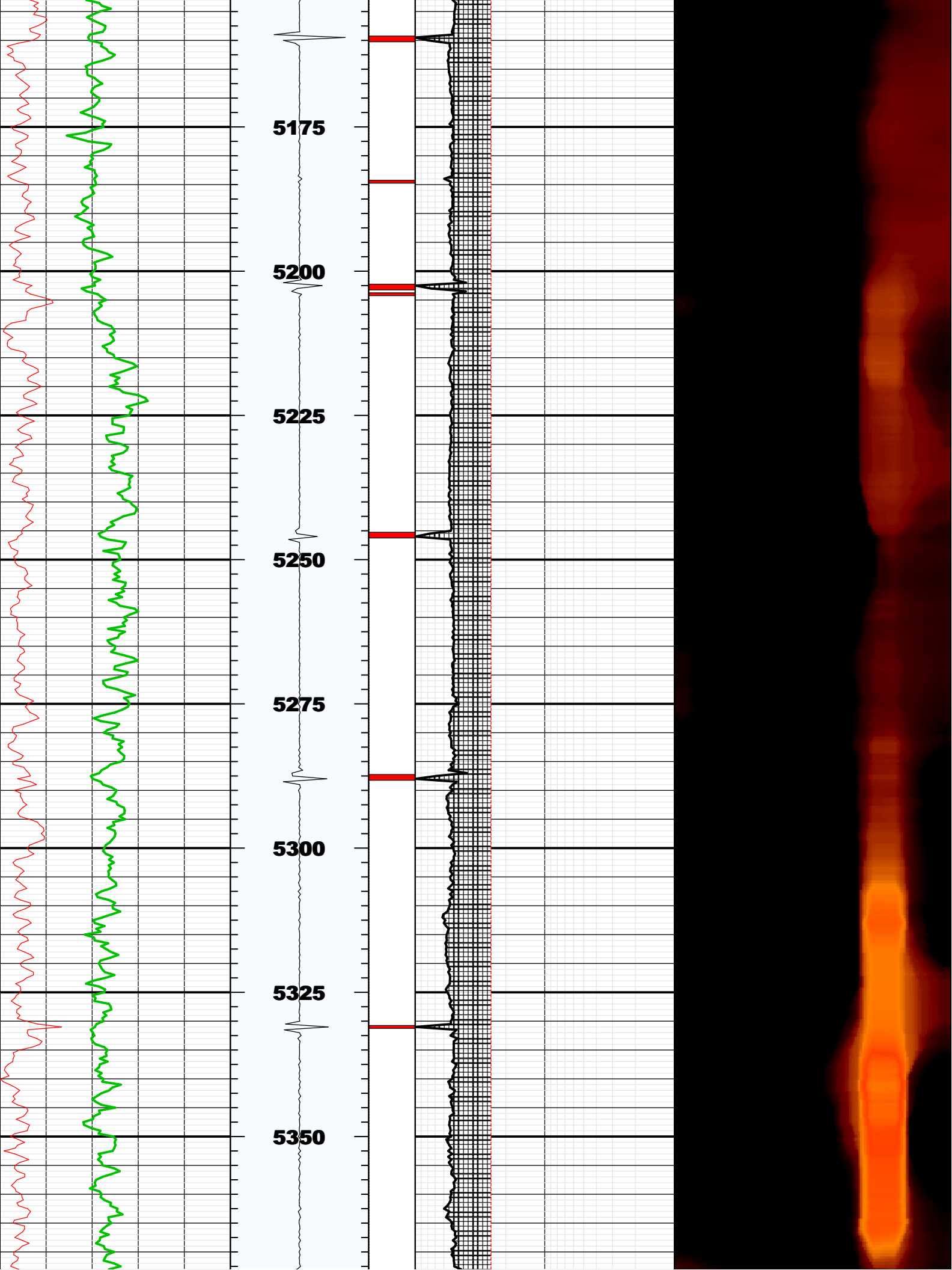


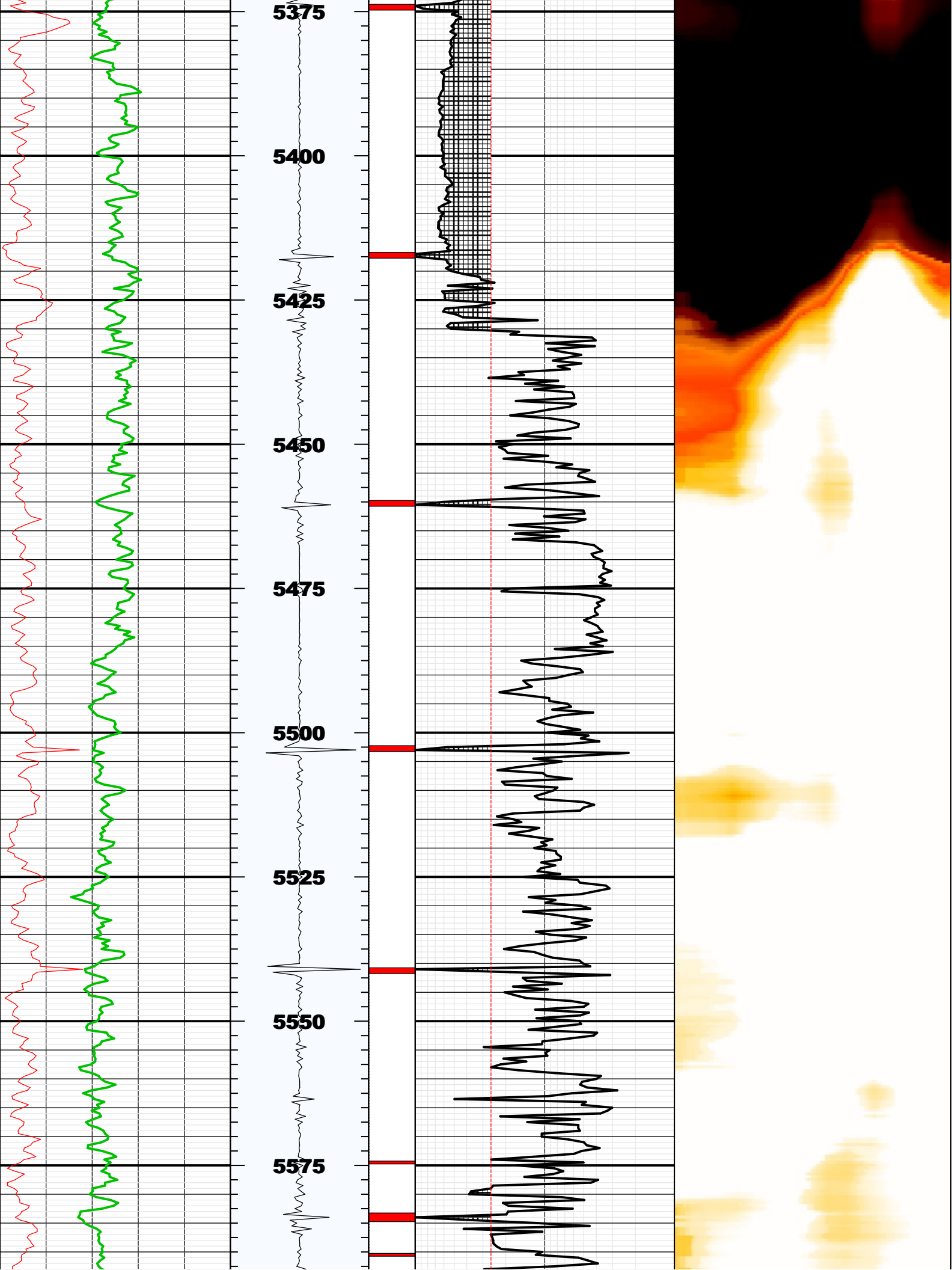




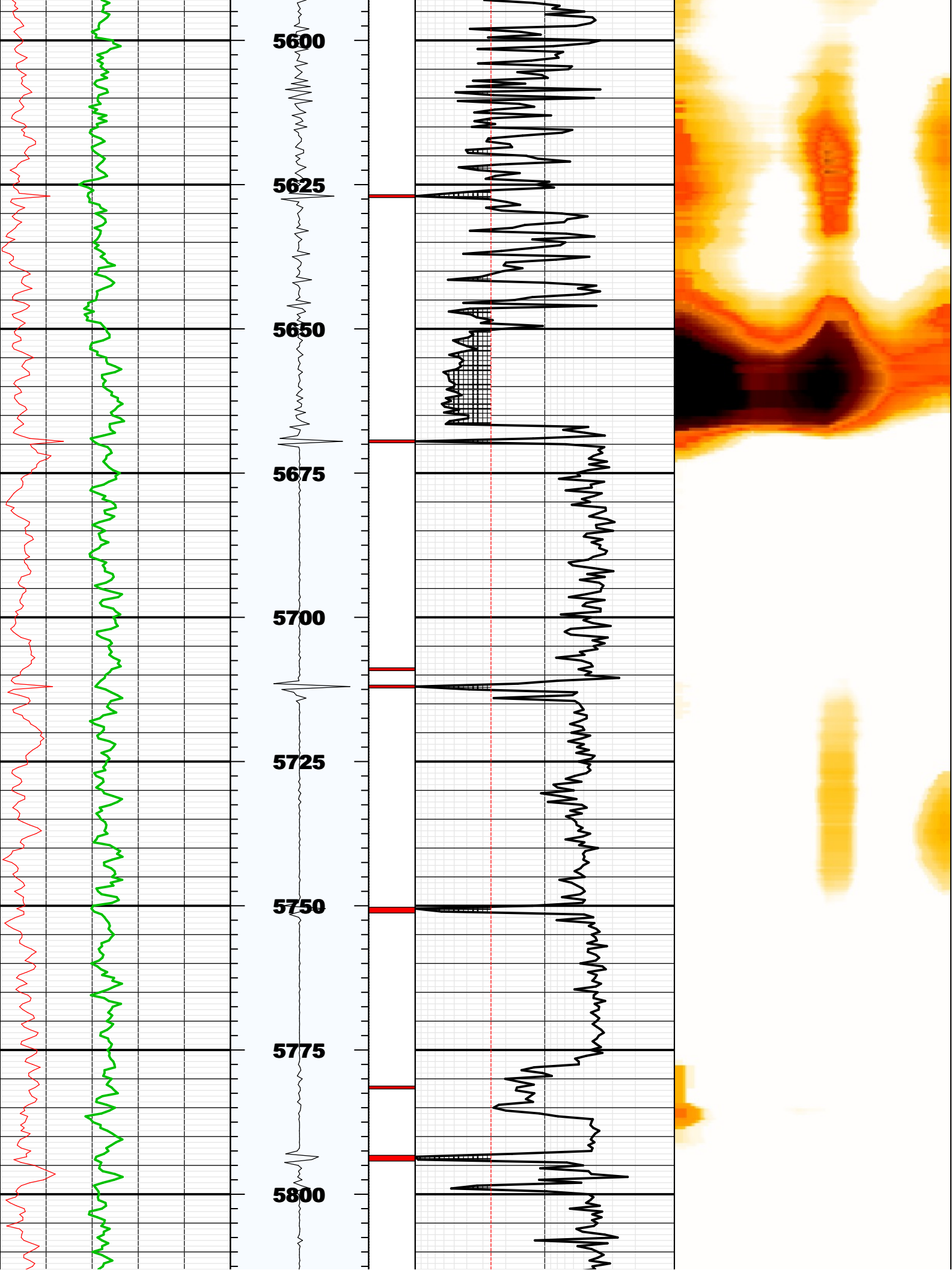




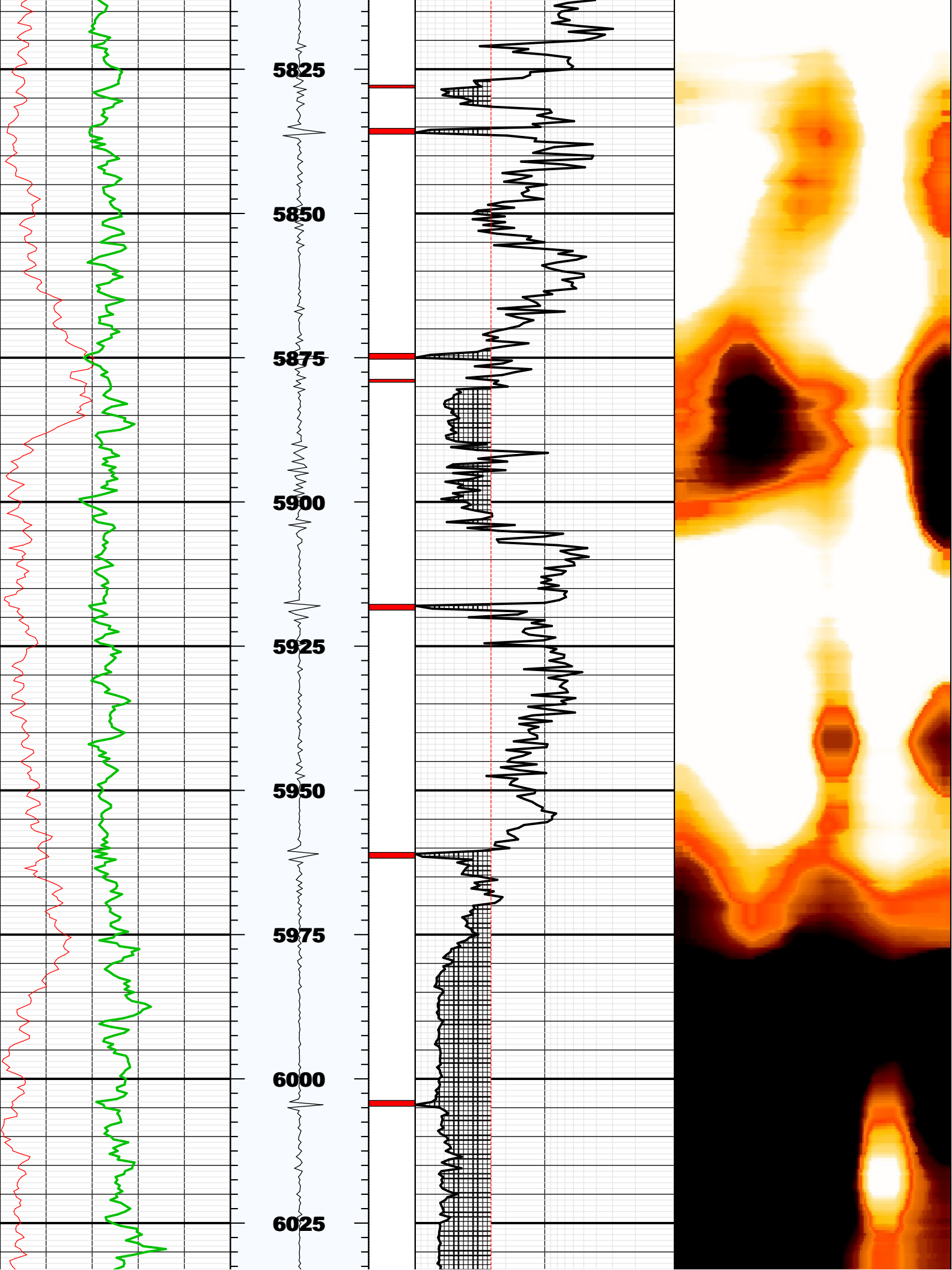


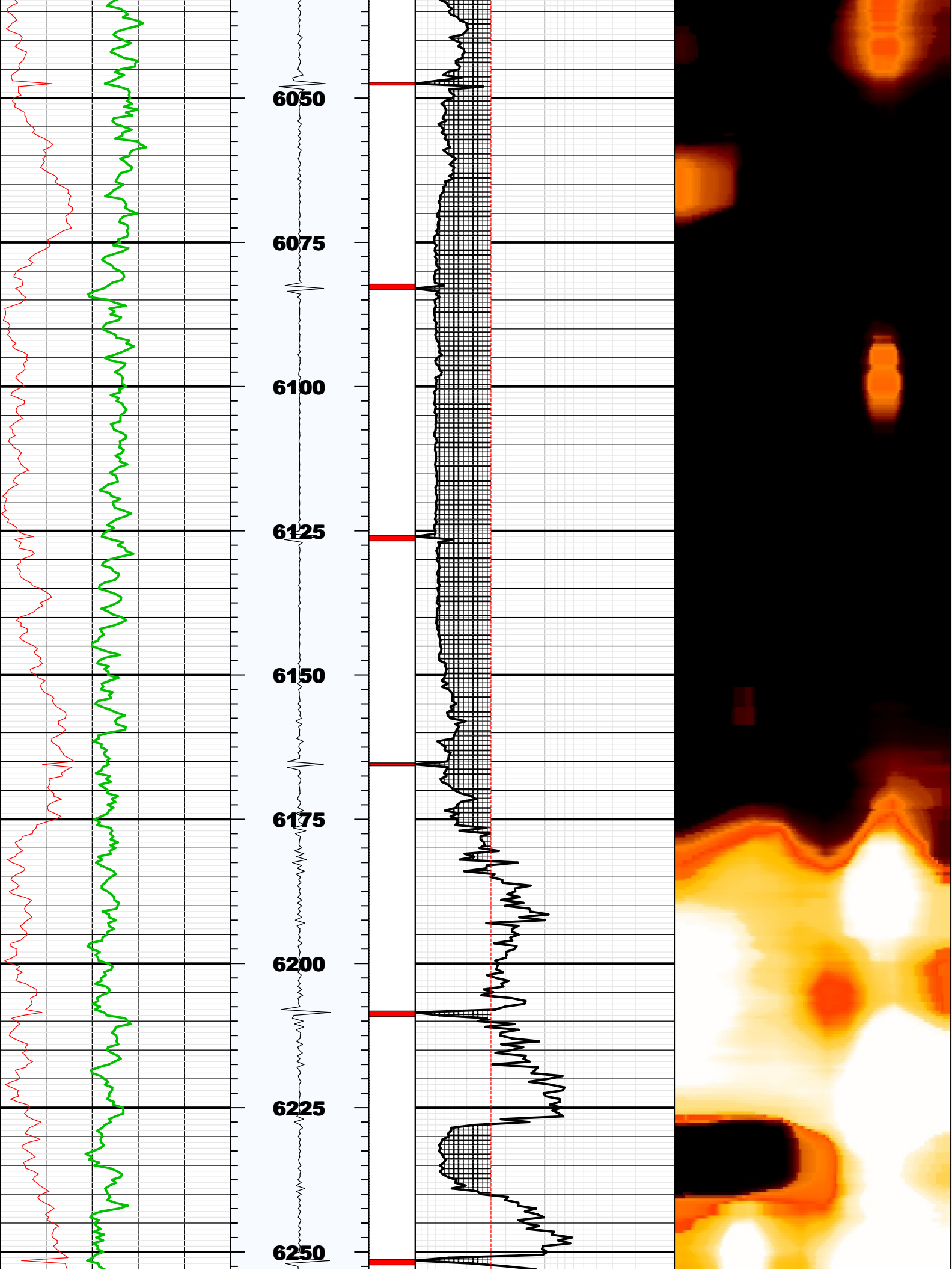


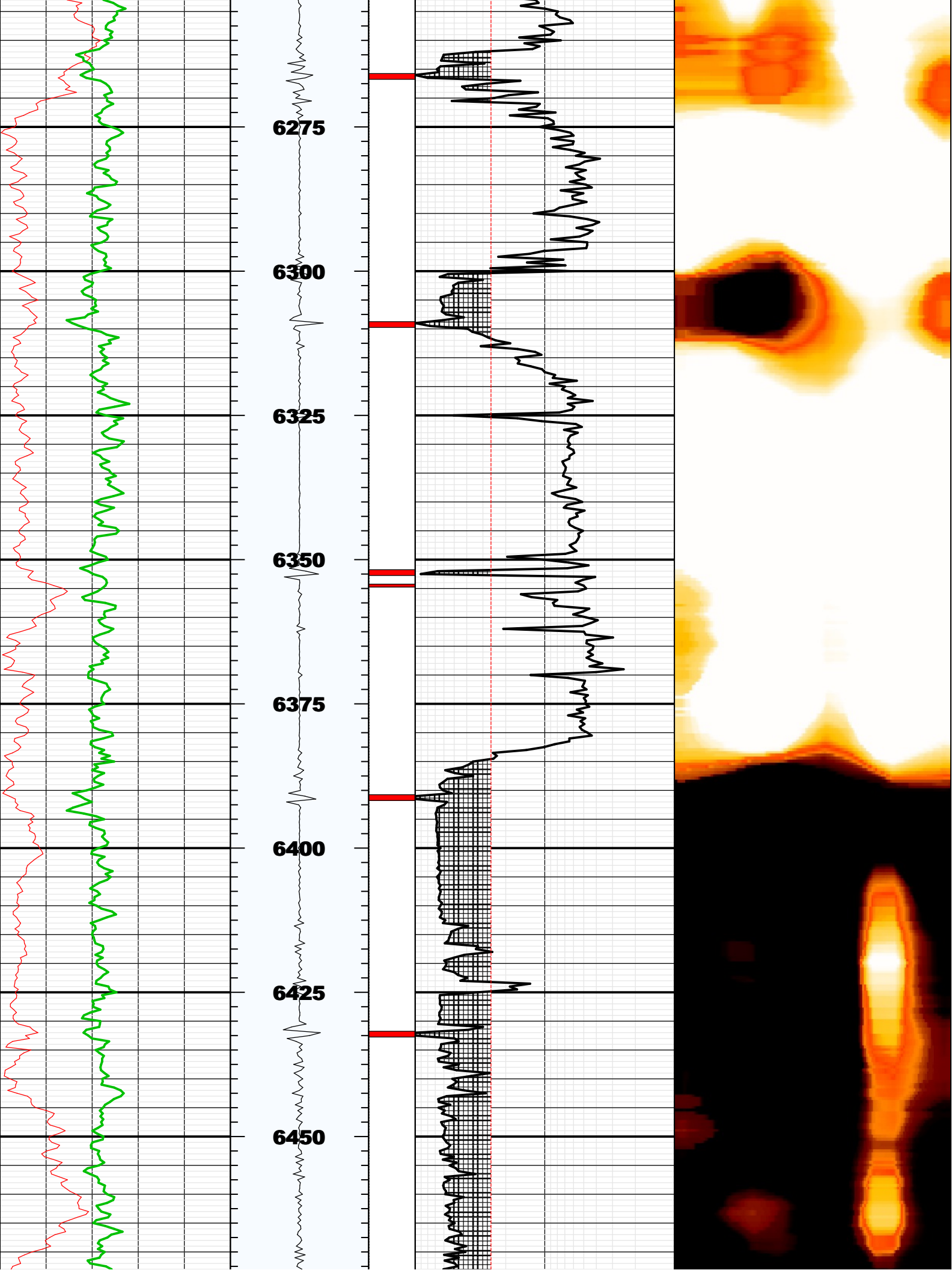


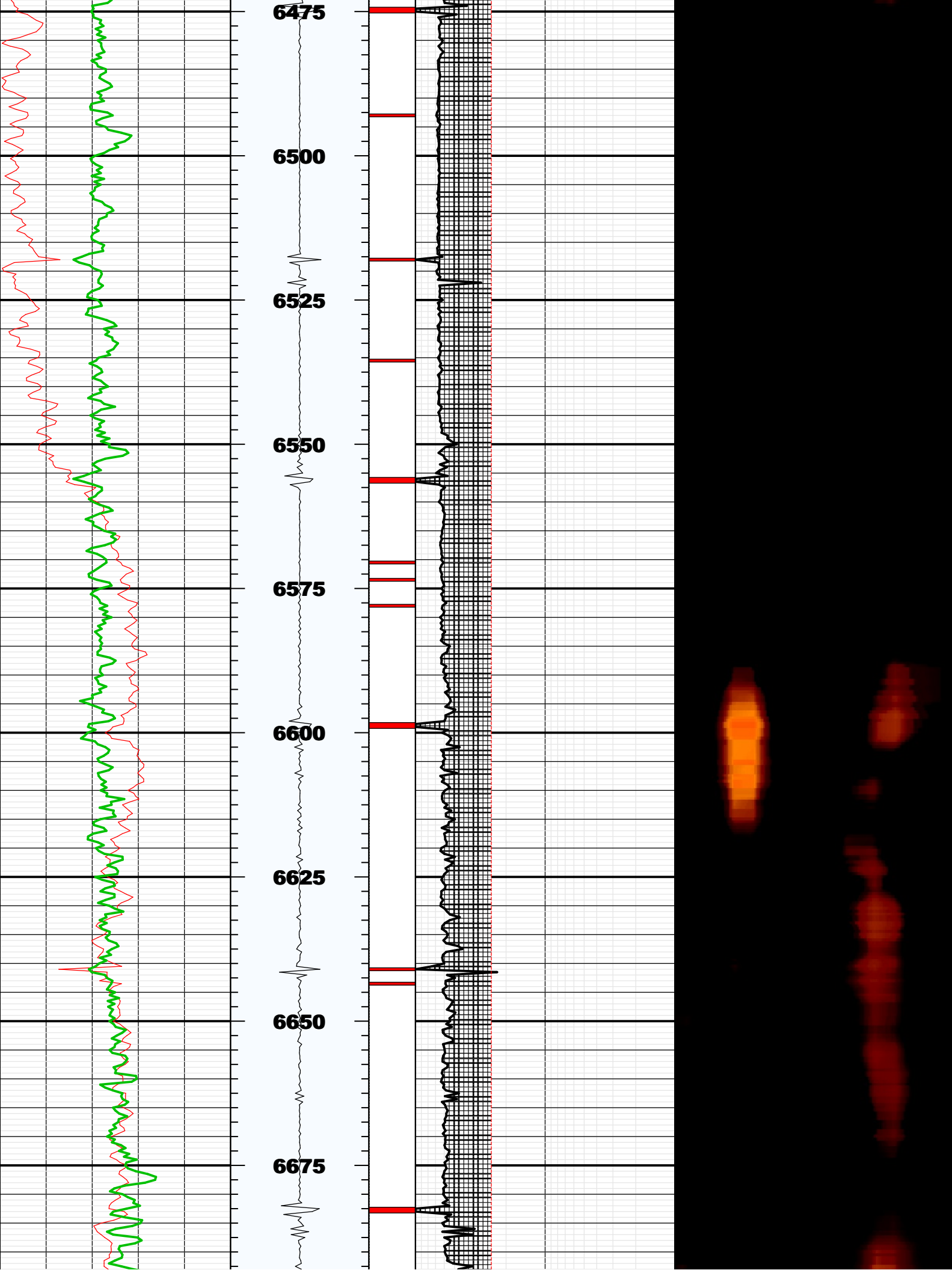


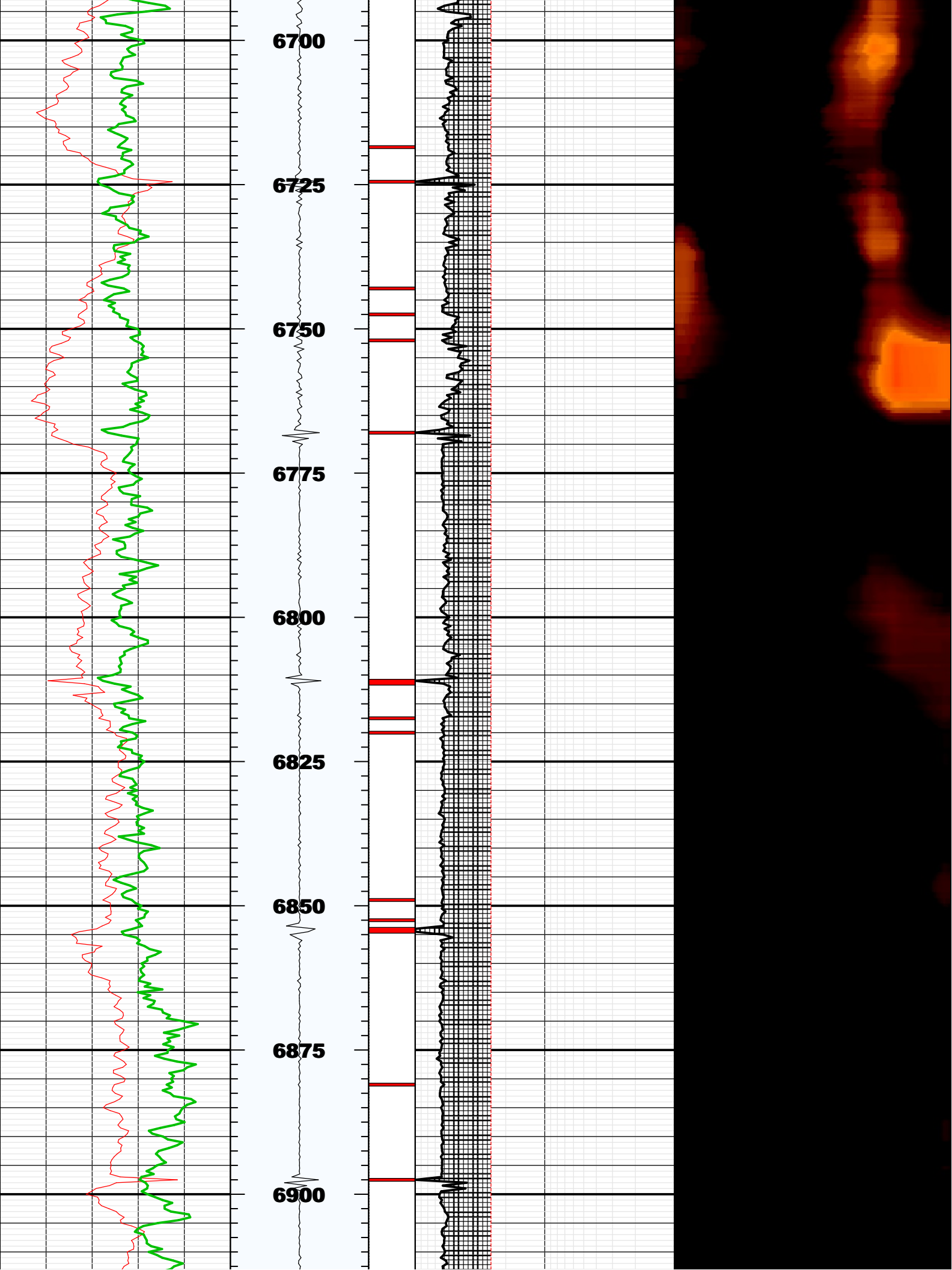




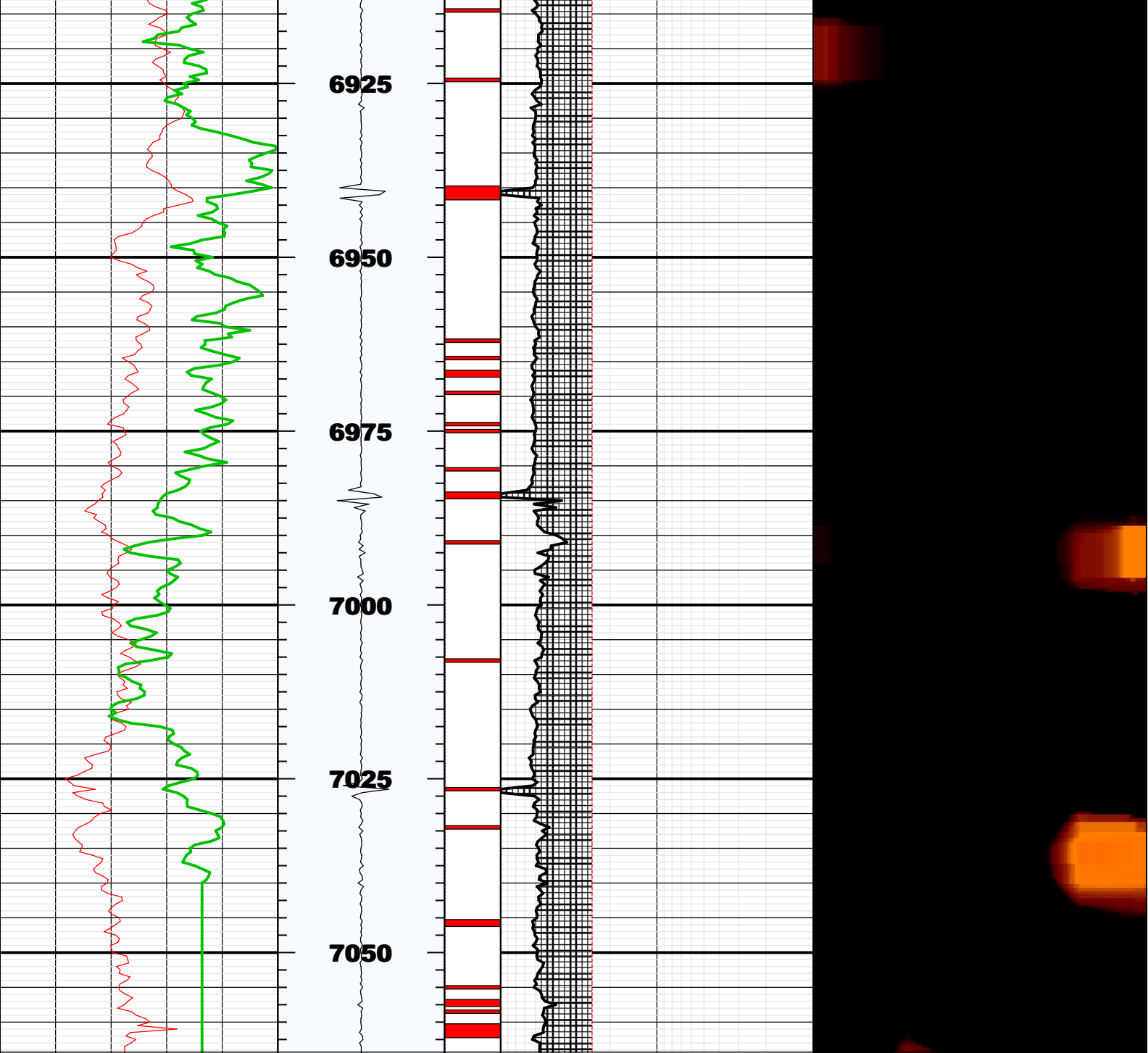














BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	188.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	65	V	EMEX Voltage
FDII	0.00000	F	FPM Data Interpolation Interval
FSOD	0_OFF		Fluid Slowness Fits Casing Outer Diameter
LOGMODE			
PP			
STEP	-0.5	F	STEP
THDH	130.00000	%	Maximum Search Thickness (percentage of nominal)
THDL	70.00000	%	Minimum Search Thickness (percentage of nominal)
THDP	Fundamental		Thickness Detection Policy
THNO	0.36200	IN	Nominal Thickness of Casing
TMUC	WRM		Type of Mud
U-USIT_DT3P			
UPAT	375K		Emission Pattern
USUB	7INC		USIT Sub Identifier
UWKM	D603010L		Working Mode
VCAS	51.40000	US/F	Ultrasonic Transversal Velocity in Casing
WINB	33.39590	US	Window Begin Time
WINE	75.39471	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.82000	MRAY	Acoustic Impedance of Mud
ZTCM	2.60000	MRAY	Acoustic Impedance Threshold for Cement
ZTGS	0.30000	MRAY	Acoustic Impedance Threshold for Gas
WLEN	22.50350	US	T <sup>3</sup> Processing Length

## Fluid Properties Used for Main Pass

